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UNIVERSITY OF NOTTINGHAM

Risk attitudes, self-efficacy & occupational sector choice:

An experimental survey of Nigerian undergraduate students

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For

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Declaration

I declare that the work in this dissertation was carried out in accordance with the requirements of the University's Regulations and Code of Practice for Taught MSc Programmes and that it has not been submitted for any other academic award. I have identified all material in this dissertation which is not my own work through appropriate source referencing. Any views expressed in the dissertation, other than referenced material, are those of the author.

SIGNED: Orimini Oluwatobi Esu **DATE:** 18th September 2014

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Abstract

This research is focused on the assessment of individuals' risk attitudes as a means to predict their employment preferences. Two sets of choices including; i) the choice between self-employment and paid employment and ii) the choice between private sector employment and public sector employment are examined in this study.

Survey questionnaires were distributed among 300 respondents and the target population was Nigerian undergraduate students in their final year of university. Using students' self-reported willingness to take risks on an 11-point Likert scale to measure general and career risk taking propensity, this study finds evidence of context-specific willingness to take risks.

While self-employment choice and private sector choice are found to be significantly related to both general willingness to take risks and career specific willingness to take career risks, the evidence found with regards to students' perceived general self-efficacy is inconsistent with predictions in the hypotheses.

With regards to students' willingness to take risks, the effect of age, marital status, cognitive ability and having university educated parents, are found to be insignificant. However, gender differences, having dependants, a public sector mother and studying a business major are found to have a significant impact on students' willingness to take risks.

1 Introduction

The risk preferences of individuals are said to determine their occupational preferences, particularly with respect to occupational sector choices such as, the choice between self-employment and paid employment, and the choice between public sector and private sector employment. Expected wages, income variability and employment security thought to vary significantly between these sectors, as do individuals' attitudes towards pay and financial security or stability. Therefore, individuals will seek to sort into the sector which they perceive to potentially maximise their labour market outcome and perhaps, improve their quality of life (i.e. standard of living).

Up until fairly recently, studies which have explored this dynamic have focused their investigations on developed countries. As such, there is a significant gap with regard to the evidence available on developing countries, especially in Africa. The few studies of Africa that have documented nay thing with regards to sector participation include Bennel (1983), Okuwa (2004), Aromolaran (2004, 2006), and Aminu (2007a) and Aminu (2010) but these studies seem to have focused on exploring these choices the in terms of macroeconomic determinants of entry or participation and earnings, for the wage sector only.

That being said, the main objective of this study is to examine how risk attitudes affect the employment preferences of undergraduate students in Nigeria, whose labour market has been described as the main source of risk through which people fall into poverty. To the best of my knowledge, this study first study to examine risk attitudes and employment preferences of university students

In order to do this, an experimental survey is conducted on university students in their final year of study. A total of 300 survey questionnaires are distributed to students from a select number of faculties including, Agricultural science, Education, Law, Management science and Social science faculties. The questionnaires are collected and analysed using STATA software, which provides regression analysis tools for testing hypotheses. The measure of risk attitudes adopted is student's self-reported willingness to take risks on an 11 point Likert scale in response, in terms of a general risk takin context and a career specific context.

The study also takes students perceived sense of self-efficacy into consideration, as this is tough to be directly related to individuals risk taking propensity and their self-employment intentions.

The main research questions which this study seeks to provide answers to include;

i) What are the main determinants of the self-employment and private sector participation amongst final year undergraduate students in Nigeria?
ii) Which variable between general willingness to take risks and career willingness to take risks, is the better predictor of the probability of self-employment private sector employment?
iii) What are the main determinants of willingness to take risks amongst undergraduate students?
iv) Are there contextual differences with regards to student's willingness to take risks?

The remainder of this paper is organised as follows; Chapter 2 is review of the relevant empirical studies of self-employment choice and private sector choice as well as a brief review of studies documented on the Nigerian labour market. Chapter 3 presents the main hypotheses for this study. Chapter 4 is provides details of the design of this study, the data

collection methods used as well as the statistical analysis techniques used to test the main hypotheses of the study. Chapter 5 presents the findings for the study and the last chapter will discuss the limitations of the study and possible avenues for future research.

2 Literature Review

This chapter will first review previous empirical studies that are related to two sets of occupational sector alternatives. These include the choice between self-employment and paid employment and the choice between private sector employment and public sector employment. The chapter will also briefly review documented studies of the Nigerian labour market. Although it is difficult to find comprehensive studies and recent information on this, inferences about the current state of the Nigerian labour market can be made. Risk attitudes are not examined from an expected utility standpoint in this study. Therefore, expected utility theories are not examined in this chapter.

Individuals' demographic and background characteristics are said to affect their risk attitudes, and occupational preferences. Therefore, the last part of this chapter will briefly discuss some demographic variables that may affect individuals' attitudes and choices.

2.1 Risk attitudes: self-employment and paid employment choice

Studies of individuals' attitudes towards risk and their probability of becoming self-employed date back as far as Knight's (1921) work, which suggested that self-employment is riskier than paid employment. In order to understand why self-employment is considered the riskier option compared to paid employment, it is important to briefly differentiate these two occupational alternatives. Whereas self-employment is typically associated with more autonomy and higher levels of job satisfaction, increased decision making, larger income variability and lower security, paid employment on the other hand, is considered to be the safe option as it entails working for a company or organisation which provides organized health and retirement benefits and for which, the burden of a potential failure is shared with many others.

Individuals differ in their willingness to accept risk and in their preferences for specific job attributes where for instance, individuals with a preference for job security are found to prefer paid rather than self-employment (Taylor, 1996, 2001). Therefore, it makes sense that, at the "equilibrium" (Kihlstrom & Laffont, 1979), risk averse individuals will be more likely to choose to become wage workers, while their less risk averse counterparts will choose to become entrepreneurs.

Knights' (1921) hypothesis was that individuals make career sector decisions based on the risk-adjusted earnings opportunities in each sector matched with their degree of relative risk aversion. And for a while, economics literature focused on only the financial risks associated with self-employment, until Liles et al. (1974) brought to light a wider range of risks including career opportunities, family relations and personal well-being, which they suggested might be associated with and individual's decision to become self-employed.

Subsequent studies including Kihlstrom & Laffont (1979), Parker (1997), Barsky et al. (1997) Cressy (2000) , Hartog, Ferrer-i-carbonell and Jonker, (2002) , Cramer et al. (2002), Ekelund et al. (2005), Dohmen et al. (2011), Caliendo, Foss and Kritikos (2009), Brown et al. (2006) etc., have found evidence to support Knight's (1921) hypothesis. For instance, Barsky et al. (1997) found that self-employed individuals have a higher risk tolerance and are on average less likely to have insurance than their employed counterparts. In their study, they adopted an experimental method to elicit individual preference parameters. The authors asked respondents scenario questions designed to yield information about their degree of risk aversion, such as willingness to gamble lifetime income or to engage in risky behaviours like smoking, drinking, failing to have insurance and the decision to be self-employed. Hartog, Ferrer-i-carbonell and Jonker, (2002) measuring attitudes towards risk by asking the reservation price that individuals were willing to pay for a hypothetical lottery ticket, found that, self-employed people in the Netherlands, are generally less risk averse. Cramer et al.

(2002) also using participants' responses to a hypothetical lottery question established that risk attitudes are relevant in choosing to become self-employed, which they also consider to be significantly more risky than working for wages. Ekelund et al. (2005) using a different approach based on a psychometric measure of harm avoidance as an indicator of risk taking propensity, also examined the choice between "dependent" i.e. paid employment and self-employment in Finland. They found an inverse relationship between risk aversion and the probability of being self-employed.

In a more recent study by Hu (2014), risk attitudes are found to have a non-linear effect on the likelihood of being an entrepreneur where, risk neutral people are found to be the most likely to be entrepreneurs, while both risk averse and risk seeking individuals are found to prefer paid jobs. His study found entrepreneurs to be no less risk averse than wage workers, seemingly contradicting the evidence in conventional studies which find entrepreneurs to be less risk averse. Just like Harrison, Lau and Rutstrom (2007), the assumption of risk neutrality is rejected in this study. And the only risk attitudes assumptions made are of aversion and preference for risk (i.e. risk seeking).

There are other cognitive characteristics believed to increase the probability of choosing to become self-employed. These include tolerance for ambiguity, locus of control, the need for independence and perceived self-efficacy (Grilo & Irigoyen, 2006). Amongst these characteristics, self-efficacy has received a lot attention for being directly associated with individuals' entrepreneurial intentions[1]. Several studies have found significant positive relationships between people's self-efficacy beliefs and their decision to become self-

[1] Entrepreneurship is assumed to be synonymous with self-employment since they are both indicative of business ownership.

employed (Bönte et al., 2012; Grilo & Irigoyen, 2006; Grilo et al, 2007). Therefore, it is important to consider the studies of self-efficacy and self-employment choice next.

2.2 Self-efficacy and self-employment

Investigations into the relationship between self-efficacy and entrepreneurial intentions trace back to Boyd and Vozikis (1994), who hypothesized that self-efficacy in performing tasks associated with starting a business venture I s influential in motivating individuals to engage in entrepreneurship.

Self-efficacy is defined as an individual's belief in their own ability to accomplish a job or a specific set of tasks (Bandura, 1977). This concept is thought to explain human behaviour in terms of what drives individuals' choices, actions and the level of effort and determination they display in the face of problems and setbacks (Chen, Gully and Eden, 2004). This is because self-efficacy is a proximal regulator of individuals' thoughts, feelings, motivations and actions (Bandura, 1991). Individuals with a low sense of self-efficacy regarding specific tasks will generally have feelings of anxiety, helplessness and depression towards performing those tasks. On the other hand, individuals with a high sense of self-efficacy will in fact choose to perform more challenging tasks, setting targets and higher goals for themselves, while ensuring that they stick to them. Therefore, self-efficacy contributes to individuals' feelings of self-confidence, and people will anticipate either optimistic or pessimistic outcomes, depending on their level of self-efficacy (Bandura, 1986).

Self-efficacy beliefs do not just vary between individuals, but equally fluctuate within individuals for different tasks (Bandura, 1997). With regards to employment choice, individuals are expected to avoid careers which they believe exceed their capabilities, and to take on careers for which they consider themselves proficient (Krueger and Dickson, 1994).

That being said, individuals who choose to become self-employed are assumed to do so because they perceive themselves to have the capabilities or core competencies needed to cope with the demands of owning a business venture (Krueger and Brazeal, 1994).

The predictive power of self-efficacy with respect to the formation of self-employment intentions, can be seen both through its direct influence on individuals' intentions and through its association with other variables like risk taking propensity, which is said to be positively related to self-efficacy (Krueger & Dickson, 1994 and Zhao et al. 2005).

2.3 Risk attitudes: private and public sector choice

In most economies, the public labour market and private labour market differ significantly in terms of their size, operations, and their wage and employment characteristics. While the private sector is composed of wage and self-employment segments, the public sector on the other hand is primarily a wage employment market. Both sectors are thought to differ with regard to the factors determining entry or participation and subsequently, earnings.

Employees in the public sector are thought to earn relatively less than their private sector counterparts, whose jobs on the other hand, are believed to be less stable or less secure (Bonin et al. 2007; Clark and Postel-Vinay, 2009 and Buurman et al. 2012). In other words, being employed in the private sector is associated with lower job security and thus, higher risk of redundancy.

Differences in earnings risk and unemployment risk between public and private labour markets makes the choice between public and private sector employment another dimension that may be relevant to individuals' risk attitudes.

A significant part of the empirical evidence investigating this relationship between private and public sector choice and individuals risk attitudes, have mainly examined this relationship within the context of developed countries. For example Bellante and Link (1981) provide evidence on risk sorting behaviour in the U.S. labour market. Their findings suggest

that individuals with higher degrees of risk aversion, who place more value on earnings and employment stability, are more likely to seek employment within the public sector, where working conditions are generally regarded as more favorable, and where the probability of becoming unemployed is relatively lower.

They assume that when people choose a sector of employment, they are in effect choosing a specific set of job related attributes, one of which is the degree of financial risk associated with the sector of employment. The financial risk they refer to is the probability of becoming unemployed and their argument is that risk averse individuals weigh this risk a lot higher and seek to avoid or reduce this risk by sorting themselves into the public sector.

Bonin et al. (2007) using data from the German Socio-Economic Panel to examine the correlation between individuals' risk preferences and earnings risk, found that individuals with lesser willingness to take risks are more likely to work in occupations with low earnings risk. Their results showed that although employees in the public sector earn around 9 percent less than their private sector counterparts, the earnings risks of the former, are generally low in all occupations compared with the private sector. Therefore, risk averse individuals are more likely to choose occupations within the public sector.

Pfeifer (2008) also using the German Socio-Economic Panel, in addition to data which he obtained from student questionnaires, found that greater willingness to take risks also increases the likelihood of being employed in the private sector. And those who seek employment in this sector hope to be compensated or rewarded with higher pay for the relatively lower job security that the private sector offers.

Pfeifer (2008) further goes on to suggest that the choice between public and private sector employment may not necessarily be a free choice for individuals, but may primarily depend on labour market conditions within that particular economy or on characteristics other employment security.

In order to understand the occupational sector preferences of undergraduate students in Nigeria, it is important to first understand the Nigerian labour market and how it operates. Therefore, the next section briefly describes the Nigerian labour market.

2.4 The Nigerian labour market

The Nigerian labour market has been described as a composite one, containing a host of labour markets, all of which suffer some sort of false continuous disequilibrium because of their highly immobile, political and market-specific nature (Aminu, 2010). Similar to the labour markets in other developing nations, there is a formal sector and an informal sector. The formal sector is composed of wage employment in the private and public sector. The wage levels are regulated by the administrative decisions of Federal Government Wage Commissions, and Prices and Incomes Policy. The informal sector on the other hand, is composed of rural, urban and transitional segments, and income in this sector is dictated primarily by the actions of market forces and only partially by the wage structures in the public and formal private sector (Aminu, 2010).

The labour market represents a significant source of financial risk via which many Nigerians fall into poverty and as indicated by Ogwumike, Adubi and Agba (2002), individuals in paid employment and those who are inadequately skilled are likely to suffer the highest risk in the events of market shocks. The labour market seems to be very saturated and unable to absorb many fresh highly qualified university graduates, not to mention, inadequately skilled individuals. New jobs are not being created for graduate entrants (Olowe, 2009) but the cost of living continues to increase, as does the income inequality gap. Many Nigerians suffer financial difficulties and as a result, are prepared to do just about anything to survive. This is believed to reflect in the distribution of Nigeria's labour force across employment sectors. The majority of the workforce seemingly falls under the self-employed sector, where income

inequality seems to be significantly less pronounced, compared with the paid employment sector, where wage differentials are said to be more pronounced, particularly with respect to the private sector[2].

Aminu (2010) shows that in terms of paid employment participation, there seems to be a shift from private sector towards the public sector amongst individuals with higher levels of education. This finding can be interpreted to mean either of two things; i) that public sector pay has become more attractive to individuals with higher levels or ii) that individuals have become more financially risk averse towards the formal private sector, with women seemingly being more risk averse[3].

[2] See Okuwa (2004), who found that wage returns in the private sector were lower for graduates of colleges of education, than they were for polytechnic graduates and university graduates. And Aromolaran (2004, 2006), who found that spending an additional year of post-secondary education was, and likely still is associated with significantly higher wage than the returns, than spending an additional year of either primary or secondary education.

[3] In the study by Aminu (2010), the probability of participation in private sector wage employment, declined much more drastically for women than it did for men.

2.5 Risk attitudes, self-efficacy, career choice & demographic variables

After establishing the link between individuals' risk attitudes, their self-efficacy beliefs and the sort of employment they are likely to seek, it is important to consider other variables related to this study. Such variables include socio- demographic traits, which are said to impact on individuals' attitudes towards risk taking, their efficacy beliefs and consequently, their employment preferences.

After carefully reviewing the literature on risk attitudes, self-efficacy and career choice, a number of demographic variables have been identified as being the most relevant to this research. These include gender, age, marital status, dependants, parental background, degree major and cognitive ability. In this section, the author reviews the empirical studies which provide evidence on these factors.

2.5.1 Gender

Empirical studies on the impact of gender on individuals' risk taking behavior has shown women to be significantly more risk averse than men. Many studies of gender and risk attitudes including, Jianakoplos & Bernasek (1998), Powell and Ansic (1997), Hartog, Ferrer-i-carbonell and Jonker, (2002) Agnew et al., (2008) etc., have provided various explanations for why gender differences exist with regards to individuals' willingness to take risks. One explanation is that women and men have innate gender traits that influence their risk taking propensity. While men are said to be naturally aggressive, emulative and over-confident (Barber and Odean, 2001), women on the other, are thought to be a lot more calm, cautious and less likely to engage in risky activities like illegal drugs, crime (Eckel and Grossman, 2002, 2008) or alcohol and substance abuse (Spigner, Hawkins and Loren, 1993). A further argument is that both men and women come under pressure to conform to these gender stereotypes and this causes them to modify their innate preferences (Booth and Nolen, 2012).

Men are thought to face significantly greater pressure and it is believed that this explains why their risk taking propensity is significantly higher than that of women.

Though the evidence on gender is substantial, some researchers including Schubert et al., (1999), Carr & Steele, (2010) and Vlaev et al., (2010), have not found any differences in risky decision making between the sexes, while others simply argue that differences between men and women vary depending on the person (Borghans et al., 2009) and the context (Byrnes et al, 1999 and Schubert et al., 1999). For instance, highly ambitious women are likely to be less risk averse because the personality traits driving their pressing need to accomplish goals, causes them to take more chances than an average female person would in their life time. Likewise, men with higher levels of self-control are more risk averse (Borghans et al., 2009). Within certain domains or contexts, women may exhibit higher levels of risk aversion, for example; in the gambling and health domain, whereas in other contexts, for example in social or career contexts, they might exhibit a lesser degree of aversion (Schubert et al. 1999). Therefore, gender differences found in one context may disappear or decrease in magnitude in another context. The interaction of gender with other variables such as age have also been found to may eliminate gender differences in risk taking (Harbaugh, Krause and Vesterlund, 2002).

Several studies including, De Wit & Van Winden, 1989; Matthews and Moser, 1996; Crant, 1996, Kourilsky and Walstad,1998 etc., which have investigated the impact of gender on entrepreneurial choice, have found significant gender differences with regards to individuals entrepreneurial interests and aspirations, particularly amongst students. Amongst these studies, the central finding seems to be that men are more entrepreneurially inclined than women. The main explanations given for this are that, men are more prone to risk taking (Sánchez and Hernández-Sánchez, 2014) and possess higher levels of confidence and a greater sense of entrepreneurial self-efficacy, than women do (Mueller and Dato-On, 2008).

This is believed to explain why the involvement of women in entrepreneurial ventures until recent years, has been limited. Although recent studies including Sánchez and Hernández-Sánchez, (2014) have shown a growing number of women taking up entrepreneurial positions, it is still believed that men are more likely to become entrepreneurs. Therefore, it would be interesting to see whether this holds true for final year Nigerian undergraduates.

2.5.2 Age

The evidence on age and risk attitudes is a bit more ambiguous than other demographic variables. For example, the evidence obtained by Barsky et al. (1997) showed mixed results with regards to age differences and risk attitudes where, young and old individuals are found to be the most risk tolerant, while middle aged people are found to be more risk averse. Hartog, Ferrer-i-Carbonell, Jonker, (2002) also find conflicting signs with regards to the effect of age differences on risk attitudes.

Amidst this confusion, the common finding seems to be that willingness to take risks decreases with age. In other words, older individuals tend to be more risk averse (Barsky et al. 1997; Borghans et al., 2008; Byrnes et al. 1999; Dohmen et al. 2011, Harrison, Lau and Rutstrom (2007) and Croson & Gneezy, 2009 Dohmen et al., 2011; Donkers et al., 2001). One explanation given for this is that as individuals mature, their priorities change. For instance, younger adults are less likely to be insured than older adults, since they lack the life experiences necessary to fully appreciate the value of insurance (Berstein 2008). However, the evidence on this is not very strong.

Another explanation and a more recent one is that as people grow older their cognitive ability declines (Bonsang and Dohmen, 2012) as well as their love for risky activities. However, this rationale seems more relevant to older individuals within the age brackets of 50 and older.

Albion, Fernie and Burton (2005) found a moderating effect for age on the relationship between proactive attitudes and general self-efficacy. With regards to self-employment

intentions, younger individuals are expected to be more willing to take such risks, since they are supposedly more willing to take risks. It should therefore be interesting to see how age impacts on Nigerian students' willingness to take risks and on their employment choices.

2.5.3 Marital Status

Marital status is another important factor that influences individuals' risk taking behaviour and choices. For example, Bonin et al. (2007) found that married couples living together are significantly more likely to work in an occupation with lower earnings variability, and thus, are more risk averse than single people. One explanation is that because a marriage contract increases the cost of breaking up the relationship, married individuals are more predisposed to reduce the risk of their partner running off and thus, are substantially more risk averse (Hartog, Ferrer-i-carbonell and Jonker, 2002).

Individuals who have never been married before should be more likely to choose self-employment, based on the fact that they are supposedly generally less risk averse than married of divorced individuals. However, Taylor (1996), Clark and Drinkwater (2000), Georgellis and Wall (2000) found that being married to a working partner increases individuals' probability of choosing self-employment because the risks involved are in effect shared with the working partner. Therefore, it should be interesting to see how marital status influences students' risk taking behaviour.

2.5.4 Dependants

Students with family responsibilities, who must rely on a steady source of income to meet family expenses, are likely to be more risk averse and concerned about job security (Bundy and Norris, 1992). For such individuals a paid job in the public sector, where insurance and retirement benefits are at least guaranteed, is likely to be the preferred choice as opposed to

perhaps self-employment or a private sector career, which are thought to be riskier with regards to income variability and job security.

2.5.5 Parental Background

A number of empirical studies including Holland (1997), Hout and Rosen (2000), Dohmen, et al. (2011,2012) have established direct and indirect links between individuals' personalities, behavior patterns, beliefs and attitudes and their parents or role models

According to Holland (1997), from childhood up to, and sometimes beyond adolescence, parents influence the vocational personality development of their offspring, who encompass the same beliefs, values and attitudes that their parents possess. These beliefs, values and attitudes are thought to be transmitted directly and indirectly to the children by way of genetics, imitational learning by the children, parenting styles or deliberate efforts on the part of parents to shape the preferences and beliefs of their children (Caner and Okten, 2010).

With regards to individuals' willingness to take risks, parental risk attitudes, which have been measured in previous studies by parental level of education (Hartog, Ferrer-i-carbonell and Jonker, 2002 and Dohmen et al. 2011), profession or occupational status (Evans and Leighton, 1989; Dunn and Holtz-Eakin, 2000 and Guiso and Paiella, 2005), income and social security status (Caner and Okten, 2010), are believed to increase or decrease a person's degree of risk aversion. For example, Hartog, Ferrer-i-carbonell and Jonker (2002) and Dohmen et al. (2011) found that individuals with highly educated mothers (parents) are significantly less risk averse than those without. Their suggested reason for this is that less risk averse mothers can transmit their own lower risk aversion to their offspring.

With regards to people's career choices, Hout and Rosen, (2000) Guiso and Paiella (2005) and Dohmen et al. (2012) are few amongst other researchers to establish connections between individuals' choices and their parents' risk attitudes. Between the two sets of occupational

sector alternatives considered in this study, the choice of self-employment seems to be more pertinent to the effect of parental risk attitudes, given that more significant evidence has been presented with respect to this choice. For example, Guiso and Paiella (2005) found a positive and highly significant relationship between fathers' occupation and the occupation of their children, where the sons of entrepreneurs where found to be more likely to become self-employed and less likely to become public sector employees than the sons of public sector employees, for whom the reverse is the case. Caner and Okten (2010) in a similar study in Turkey found evidence of a greater propensity for the children of the self-employed to become entrepreneurs. The reasoning is that individuals raised by self-employed parents, are probably more exposed to the challenges and opportunities associated with owning and running a business and thus, are more familiar and perhaps acceptant of the risks associated with owning a business. In other words, "intergenerational preferences" (Dohmen et al. 2012) for self-employment are transferred from self-employed parents to their offspring. Another explanation is that by way of business inheritance, children of entrepreneurs also become business owners (Dohmen et al. 2012).

Given the strong body of evidence on parental background variables, the parental background of students is likely to influence their attitudes and their employment preferences. Therefore, it is of significant interest in this study.

2.5.6 Degree Major

An individual's university degree major is likely to have some bearing on the career sector which he or she ends up in or is drawn towards. Degree major is to some extent indicative of chosen profession and according to economics literature an individual's profession has some correlation with his or her willingness to take risks. For instance, according to statistics published by the Ministry of Education and the Ministry of Health in 2008, Turkish graduates with majors in education and health are mainly employed in the public sector, where

employees are less likely to be laid off (Caner and Okten, 2010). This can be interpreted as meaning either of two things; i) that Turkish graduates from education and health majors choose the public sector because they are concerned about job security and thus, significantly risk averse or ii) that they chose majors in education and health because they believed their chances of getting a job in the public sector will be increased, which is still indicative of significant risk aversion towards potential unemployment. Although this effect has typically been observed amongst individuals already in full-time employment, there is no evidence to suggest that it is impossible to observe this effect amongst individuals on the brink of starting their future careers i.e. final year undergraduate students.

It is important to note that the nature of some degree majors either increases or reduces the possibilities for self-employment. For example, the likelihood that undergraduate students enrolled on Law majors will own their own private practices after graduation is reduced by the fact that upon completion of their Bachelor's degree, law graduates still have to complete Law school, which takes at least a year in Nigeria. Upon completion i.e. passing state bar final exams, successful candidates are "Called to bar" and must pay an annual practicing fee if they wish to practice as a barrister or solicitor. The economic costs already incurred up to this point, might reduce the incentive for such individuals to take any further risks of starting a private practice. Perhaps this explains why most legal practices are set up as LLPs since it is easier to partner up with other qualified legal practitioners who together can share the risks of the business. Moreover, in order to be truly respected as a legal practitioner a person needs to have had a significant number of years of training with a well-established private firm or government organisation.

From this view, degree major therefore represents an important variable that must be considered in this study, since it could be confounded with risk attitudes in explaining entrepreneurial intentions.

2.5.7 Cognitive ability

The literature on the impact of cognitive ability on risk attitudes is fairly recent. Individuals' risky behaviours are thought to be guided by cognitive processes (Bosang and Dohmen, 2012). Burks et al., (2009) suggested that differences in individuals' cognitive ability affect their perception of risky options, and subsequently, the choices they make. Individuals with higher cognition perceive complex options more precisely than those with low cognitive ability, and thus, will be more likely to choose riskier options.

Dohmen et al. (2010), testing a random sample of approximately 1,000 German adults, found that higher cognitive ability is associated with lesser risk aversion. Similarly, Booth, Cardona and Nolen (2011) in an experiment involving 231 UK college students, found a small, but significant association between students' cognitive ability and their likelihood of participating in a real-stakes experimental lottery. In their study, cognitive ability was measured by IQ levels based on a twenty-minute version of the Raven's matrices. Booth and Katic (2013), despite finding no statistically significant correlation between willingness to take risks and cognition, also suggested that higher cognitive skills may indirectly impact on individual's economic outcomes, via greater risk-taking behaviour.

High-ability students are also thought to have a higher sense of self-efficacy well than do low ability students (Caner and Okten, 2010). Such students have strong beliefs in their capacity to make informed and effective risky decisions and as such, this might be more likely to engage in challenging tasks.

Thus, from this view, students with high cognitive skills are expected to be more likely to choose self-employment and private sector careers than students with lower cognitive ability. And it should be interesting to see how this plays pout for final year undergraduates.

3 Hypotheses development

This section presents a list of hypotheses that will later be tested using regression analyses. Based on the studies reviewed above, a number of hypotheses can be constructed for the present study. It has been established that staring up a business involves considerable risk and uncertainty. Thus, individuals with greater tolerance for risk are more likely to consider self-employment as attractive in their career decision making, than individuals with lower tolerance for risk. Similarly, individuals with a greater tolerance for risk are more likely to consider the private sector than less risk tolerant individuals.

That being said, the main hypotheses of this study are as follows;

H_1: Students who are risk seeking are more likely to choose self-employment than students who are risk averse (+).

H_2: Students who are risk seeking are more likely to choose private sector employment than students who are risk averse (+).

H_3: Students who express a higher sense of self-efficacy are more likely to prefer self-employment than individuals who express lower self-efficacy (+).

H_4: Students who express a higher sense of self-efficacy are more likely to prefer private sector employment than individuals who express lower self-efficacy (+).

3.1 Variables

From the data set, binary variables were derived by grouping data together. This was more convenient as it helped simplify complex categorical variables. However, it did increase the attrition rate, because incompatible values or responses had to be excluded.

3.1.1 Dependentvariables

One of the dependent variables for this study pertains to one of the occupational choices of interest in this study, which is the choice between self-employment and paid employment. The variable is labelled "self-employment" and it takes values of 0 and 1, where, preference for self-employment takes the value of 1 and preference for paid employment, which combines responses pertaining to both paid private sector preference and public sector preference, taking a 0 value.

The next dependent variable pertains to the second occupational choice of interest in this study, which is the choice between private sector employment and public sector employment. The variable is labelled "private sector" and it equally takes values of 0 and 1, where, preference for the private sector, which includes both the paid private sector and the self-employed segment of the private labour market, takes the value of 1. And, preference for the public sector, which only includes wage employment, takes a 0 value.

The problem with this variable is that because self-employment preference responses have been included in this variable, there is a potential for signs to get mixed up or for significant effects to be obscured, especially if these variables have a strong correlation with self-employment preference. In hindsight, this problem might have been avoided if private sector and public sector choice had been tested as a separate element in the survey as opposed to being tested as one survey item.

One way to make up for this problem is to examine private and public sector choice with respect to the wage sector only. However, the issue with this is that a large number of observations are lost, as a result of excluding responses pertaining to self-employment preference. The variable will equally take values of 0 and 1, but this time preference for the private sector will only include responses pertaining to paid private sector preference, while the preference for public sector will remain the same. The variable is given the label, "paid private sector", where preference for the paid private sector takes the value of 1 and preference for the public sector takes the value of 0.

It should be noted that in the process of grouping data to derive binary variables, some response values had to be ignored. For example, with regards to the employment choice question, responses of "no preference" are excluded, and this reduces the number of observations included in the respective regression models.

3.1.1.1 Main explanatory variables

Investigating the risk attitudes of students and how this affects their employment choices is the main focus of this study. Therefore, it would be inadequate not to test the impact of demographic variables on the students' willingness to take risks. That being said, willingness to take risks is tested against demographic variables in the data set, which are predicted to impact on individuals' risk attitudes.

Since the survey assessed both students' general willingness to take risks and career willingness to take risks, two dependent variables are employed. The first variable pertains to general willingness to take risks and the variable is labelled "general risk seeking". It takes values of 0 and 1 where, risk seeking responses take the value of 1, and risk averse responses take the value of 0.

The second variable pertains to career willingness to take risks and the variable is labelled "general risk seeking". It takes values of 0 and 1 where, risk seeking responses take the value of 1 and risk averse responses take the value of 0. For both the general and career risk variables, risk seeking responses include Likert scale value responses of 0 to 5, while, the risk averse responses include Likert scale value responses of 6 to 10.

In investigating self-employment choice, this study also had to take account of individuals' self-efficacy beliefs, as this is also predicted to have a direct impact on the decision to become self-employed. To this effect, a binary variable for self-efficacy is created, where, higher self-efficacy scores take the value of 1 and lower self-efficacy scores take the value of 0. As mentioned previously in this section, the criterion used to classify self-efficacy scores is based on the median total general self-efficacy score.

3.1.1.2 Other explanatory variables

In the previous chapter, gender, age, marital status, parental background, degree major and cognitive ability were identified as important demographic variables that are likely to interact with the main variables of interest in this study. Therefore, in this section, the author defines the measures for these variables and their expected coefficient signs.

Gender: Gender is given the label "Female" and it is a binary variable with the values, 0= male and 1=female. The expected coefficient sign for this variable is negative (–ve), with respect to general risk seeking, career risk seeking, self-employment choice and private sector choice.

Age: Age is given the label above "age ≥25" and it is a binary variable with the values, 0= respondents from ages of 18-24 and 1= respondents from the age of 25 and above. The expected coefficient sign for this variable is negative (–ve), with respect to general risk seeking, career risk seeking, self-employment choice and private sector choice

Marital status: Marital status is given the label "never married" and it is a binary variable with the values, 0= respondents who are married or have been married and 1=single respondents. The expected coefficient sign for this variable is positive (+ve), with respect to general risk seeking, career risk seeking, self-employment choice and private sector choice

Dependants: This is given the label "dependants and it is a binary variable with the values, 0= "No" responses dependants and 1= "Yes" responses. The expected coefficient sign for this variable is negative (–ve), with respect to general risk seeking, career risk seeking, self-employment choice and private sector choice.

Parental background: There are a total of four proxy variables for parental background. Two variables pertain to parents' education and the other two pertain to parents' occupational status. The first variable for parents' education is named "university educated mother" and it is a binary variable with the values, 0= mothers with less than a diploma certificate and 1= mothers with a diploma certificate and above. The second variable is named "university educated father" and it is a binary variable and it is a binary variable with the values, 0= fathers with less than a diploma certificate and 1=fathers with a diploma certificate and above.

The first for variable for parents' occupational status is named "public sector mothers" and it is a binary variable with the values, 0= mothers not employed in the public sector and 1= mothers employed in the public sector. The second variable is named "public sector fathers" and it is a binary variable with the values, 0= fathers not employed in the public sector and 1= fathers employed in the public sector.

The expected coefficient sign for the measures of parents' education is positive (+ve), while of the expected coefficient sign for the measures of parent's occupational status is negative (-

ve), with respect to general risk seeking, career risk seeking, self-employment choice and private sector choice

Cognitive ability: Cognitive ability in this study is measured by cumulative GPA attainment and a GPA of ≥ 3.1 is the pre-determined score required, in order for a respondent be classified as having a high level of cognition. The variable is thus, given the label "cumulative GPA≥3.1" and it is a binary variable with the values, 0= respondents with cumulative GPAs of <3.1 and 1= respondents with GPAs of ≥3.1. The expected coefficient sign for this variable is (+ve), with respect to general risk seeking, career risk seeking, self-employment choice and private sector choice.

Degree major: With regards to this variable, it seemed to be statistically unfitting in trying to create separate dummy variables for each degree programme or course. Therefore, degree programmes were classified into business and non-business degrees and a dummy variable was created. The variable is given the label "business degree" and it takes the values, 0= respondents studying non-business majors responses dependants and 1= respondents studying business majors. Respondents studying business degree includes students from management science and social science faculties, while all other programmes are classed as non-business degrees. The expected coefficient sign for this variable is positive (+ve), with respect to general risk seeking, career risk seeking, self-employment choice and private sector choice.

4 Methodology

This chapter gives a detailed description of the methods used to investigate the risk attitudes of final year undergraduate students in Nigeria towards two sets of occupational alternatives, which include the choice between self-employment and wage employment, and the choice between private sector and public sector employment. In this chapter, some fundamental elements that constitute every experiment are identified, including sample design, selection process, ethical considerations etc. Next, details of the method adopted and the modifications made to fit this particular research are outlined.

4.1 Reasons for using survey method

Studies of risk attitudes have often employed different research methods including field experiments (e.g. Jianakoplos and Bernasek, 1998), abstract experiments (Hartog, Ferrer-i-Carbonell, and Jonker, 2002) and conventional surveys (e.g. Dohmen et al., 2011). The most efficient method seems to be conducting field experiments. The advantage of this method is that it allows for closer examination of the factors affecting individuals' risk attitudes. However, given the time (only three months) and resource constraints of carrying out an MSc dissertation, a field experiment was not feasible and for this reason, survey experiment was chosen for the study. The main advantage associated with using survey method, besides the fact that it is one of the most economical data collection techniques, is that it is the quickest way of obtaining data.

In this study, paper questionnaires were employed in collecting data. This was necessary to ensure higher response rates. The use of paper questionnaires still remains one of the fastest and most guaranteed ways to obtain information. A group of people can easily be gathered in a room and questionnaires can be are distributed to them. Appropriate instructions about how to fill in the questionnaires can easily be given and this method creates room for participants

to raise any aspects of the questionnaires that they are not clear on. Consequently, the probability of invalid responses will be significantly reduced. This method is also relatively less expensive.

The main disadvantage of using paper questionnaires are of course with regards to data coding and analysis. This can take up a considerable amount of time especially when over a 100 questionnaires have to be analysed, as was the case in this research. This can be eased by using fixed alternative questions were possible. However, fixed alternative questions must be used cautiously as they are not always the better alternative to open-ended questions.

4.2 The population and sample

4.2.1 Sample size consideration

With regards to the number of subjects contained in a sample, more does not always necessarily imply better. Since, one can use a representative sample to capture the whole population. As long as one has a representative (Davies, 2007) and precise enough sample then, it secures validity (Oliver, 2003). From previous MSc researches on related topics, former Business school students have tended to collect samples of about 100 sample respondents. This study asked 300 participants to participate in the survey.

4.2.2 Target people

The target subjects for the survey included undergraduate students in their final year at the University of Calabar, which is a Federal government owned university in Nigeria. It is situated in an indigenous town within the South-eastern region of Nigeria, known as Calabar. This town is where the author grew up and thus, the natural gravitation towards the location as the choice of sample population. Moreover, it provided some advantages for data collection and representative of higher education institutions in the southern geo-political region of Nigeria.

4.2.3 Selection process

Questionnaires were given to instructors from a select number of faculties (i.e. departments), who were provided with guidelines on how questionnaires were to be distributed. The selected faculties for the sample included; i) faculty of agricultural sciences, under which courses in soil science, animal science and agricultural economics are taught; ii) faculty of social sciences, under which economics and geography & regional planning courses are taught; iii)faculty of management sciences, under which accounting, banking and finance, marketing and business management courses are taught; iv) faculty of education, under which courses in adult &formal education and business education and lastly, v) faculty of law. The reason for such allocation was to ensure that the sample is truly representative of undergraduate final year students of the university.

4.3 Ethical considerations

4.3.1 Access

In every research, there are ethical standard practices which researchers are expected to comply with, and one of these practices pertains to the subject on gaining access (Creswell, 2008). In this research, entry access was gained through the Head of departments of the 5 faculties, who were provided with details about the purpose and relevance of the research.

4.3.2 Informed Consent

Another important ethical consideration in every research is ensuring that the fully informed consent of participants is obtained (Gregory, 2003). In order to guarantee this, an explanatory consent cover letter was attached to the front page of each questionnaire issued to respondents. The letter provided respondents with details about the purpose & objectives of the research, and informed them about of their rights to change their mind about participating, or decline to answer a particular question or questions, at any time during the process.

4.3.3 Confidentiality

The confidentiality is guaranteed to protect participants' personal information. By ensuring confidentiality, the probability of answering questions will be increased. And to ensure confidentiality, these pages of the questionnaires were detached before the data was coded and analysed.

4.4 Questionnaire Design

As aforementioned, questionnaires were used to collect information pertaining to undergraduates risk attitudes, perceived self-efficacies and employment preferences. The questionnaires were administered during lectures, and participants were asked to complete and return the questionnaires at the end of the lecture. Again, this was to ensure that high response rates were achieved. Participants were also asked to print their names on the final page of the survey to prevent duplication.

The questions contained in the survey were primarily fixed-alternative questions, with the exception of questions which asked students to provide their name, faculty and degree programme. The purpose of using fixed-alternative questions was to facilitate participants' ease of scoring, ensure a higher response rate and also, allow for easier coding and data analysis. A copy of the questionnaire can be found in Appendix 1. The questionnaire was designed to obtain personal and family background information about participants, as well as information regarding their willingness to take risks, their employment preferences and their self-efficacy beliefs. The questionnaire was divided into four sections including;

4.4.1 Personal data

This section asked participants to provide information about their gender, age group, marital status, dependants, and also, their faculty, degree programme and cumulative GPA. These demographic variables considered to be the most common and relevant to studies of risk

attitudes, self-efficacy and career choice. Demographic variables such as race and ethnicity are not included because the population of interest is thought to be relatively homogenous in this regard. Students at the University of Calabar are pre-dominantly of black and African heritage.

4.4.2 Parental background data

This section of the questionnaire asked participants for information regarding their parents' education and occupational status. As mentioned previously, parents' level of education, profession and income represent alternative measures of parental risk attitude. However, this study takes only level of education and occupation into account because similar to the suggestions of Dohmen et al. 2011, it is believed that parental education already captures some of the effect of wealth and income. The level of education a person has, to a reasonable extent dictates their earning power in labour market. With regards to education level, the author takes this into account on the basis of five tiers which include primary school education & below, senior high school certificate, diploma certificate, bachelor's degree and postgraduate degree. With regards to parental occupational status, this study takes into account five categories including parents who are unemployed, retired, employed in the public sector, employed in the private sector and self-employed. The reason for including parents' occupational status is that it believed to not only be indicative of parental risk attitudes but can also explain individuals' inclinations towards particular sectors. For example, the presence of public administration workers in a household, may increase the likelihood of subsequent members of that household becoming public administration workers since, such individuals are likely to have had useful insights pertaining to such work transmitted to them by their predecessors (Tansel, 2004). As mentioned previously, the same is applicable for self-employed parents whose children are likely to follow in their footsteps either through inheritance of their parents' businesses or by starting up their own businesses

(Dohmen et al. 2012). Therefore, parental occupational status is a useful variable to consider here.

4.4.3 Risk attitudes

This section presented participants with three main questions, designed to ascertain both their perception of risk and willingness to take risks. The first question asked participants to identify what they associate most with the term 'risk', given a list of four options. The question was phrased as follows;

The first thing that comes to my mind when I hear the word 'risk' is

- *opportunity*
- *threat*
- *opportunity & threat*
- *I have no idea*

Individuals possess different psychological traits, and this makes them view and take risks differently (Booth and Katic, 2013). Therefore, in any study of individual risk attitudes, it is important to try to establish what participants' views on risk are and how this perhaps, might explain the average risk taking propensity for the given sample. For example, if majority of the respondents identify risk to imply "threat" then, perhaps that might explain why majority of the respondents might be risk averse as opposed to risk seeking.

4.4.3.1 Measuring Risk Attitudes

Risk attitudes are inherently subjective and as such, the way we choose to evaluate people's attitudes towards risk is likely to impact on the relevance or validity of the findings obtained. It is important to examine the two most common measures, often employed in studies of risk attitudes to explain people's choices. These measures include willingness to pay (WTP) for a hypothetical lottery ticket, where individuals are asked to state the reservation price they are

prepared to give up in order to obtain an imaginary lottery ticket (Donkers et al., 2001; Hartog, Ferrer-i-carbonell and Jonker, (2002); Guiso and Paiella, 2008) and self-reported risk attitudes, which basically asks individuals to rate their willingness to take risks in either general or specific contexts, on a Likert scale (Dohmen et al., 2011).

With regards to the WTP for a hypothetical lottery measure, questions have been raised regarding its practicality and suitability when it comes to survey studies. For instance, Hartog et al. (2002) suggested that this measure is not typically practical or ideal when carrying out a survey study that also seeks to measure other variables. For this reason, this study has elected to use the self-reported measure of risk attitudes. In particular, this study adopts the self-reported measure employed by Dohmen et al. (2011), who asked participants to rate their willingness to take risks on an 11-point Likert scale, from 0 to 11. The specific question asked was phrased as follows;

Are you a person who is generally prepared to take risks or do you try to avoid taking risks?

Participants were then expected to choose a number between 0 and 10, to represent the level of risk with which they are comfortable in making decisions, with 0 being 'avoid risks as much as possible' and 10 being 'take risks as much as possible'.

Next, participants were asked to rate their willingness to take risks with matters that concern their careers. The specific question asked was phrased as follows;

People can behave differently in different situations. How would you rate your willingness to take risks when it comes to things that concern your career?

The reason for this question is in line with empirical studies (Byrnes et al. 1999; Dohmen et al. 2011; Harris & Jenkins, 2006 and Ding et al. 2010), which suggest that individuals' willingness to take risks vary from one context to another. Individuals who may not

necessarily exhibit risky behaviour in general, may be more willing to take chances when it comes to matters that concern their career (Dohmen et al. 2011). Whether this is a factor of the varying levels of risk is not relevant here, the objective is to identify whether there are indeed significant differences between students' self-reported willingness to take risks in a general context and within career contexts.

The advantages of using self-reported willingness to take risks as a measure of risk attitudes include the fact that it is considerably easy for participants to understand and respond to and it incorporates not just individuals' risk preferences but also their risk perception. This is because it gives participants sufficient leeway to think about their utility curvature when choosing a value on the Likert scale, and also allows them incorporate subjective beliefs about the stakes and probabilities typically involved in taking risks generally (Dohmen et al. 2011). There is reasonably sufficient empirical evidence (Dohmen, et al. 2011; Caliendo, et al. 2009 and Jaeger et al. 2010) to validate self-reported measures of risk attitudes.

The limitations of this measure however include the tendency for respondents to either exaggerate or understate their willingness to take risks, or to completely avoid rating their willingness to take risks.

4.4.4 Career choice

The first question in this section was useful in measuring employment preference. Participants were asked for their preferred career choice upon completion of their studies:

After completing my studies, I will prefer to be:

- *Employed in the private sector*

- *Employed in the public (government) sector*

- *Self-employed (Private business owner)*

- *I have no preference*

The purpose of this question was to identify how students' preferences between the choice of self-employment and wage employment, which includes both private sector and public sector employment. The purpose of distinguishing wage employment alternatives into private and public sector employment is to be able to establish whether there are significant patterns in students' self-reported willingness to take risks and their preferences between wage employment alternatives.

The next question in this section asked participants to rate how financially risky they perceived each employment alternative i.e. self-employment, private and public sector employment to be, on an 11 point Likert scale, from 0= lowest perceived risk to 10= highest perceived risk. The specific question asked was phrased as follows;

Different career options are said to have different levels of financial risk, on a scale of 0 to 10, how risky do you perceive each of the following to be?

- *Self-employment*
- *Public sector (government) job*
- *Private sector job*

This question was meant to reveal which sector students' perceived to be the most risky, and whether their perceptions align with or stray from the assumptions which have been documented in other studies of risk attitudes and career choice. Furthermore, it might reflect or explain why participants on average were inclined towards a particular sector and not the other.

In line with the assumption of Bellante & Link (1981) that individuals in choosing an employment sector, are in effect choosing their most preferred job attributes, participants

were presented with a list of 7 job attributes including, job security, autonomy, expected future salary, initial starting salary, opportunity to exercise leadership, prestige and advancement & growth potential, and asked to rate the importance of each of these attributes on a 5 point scale from 1 to 5, where 1= lowest importance and 5= highest importance. These 7 attributes are thought to be common to all three employment alternatives but vary in terms of importance for each of them. For instance, autonomy (i.e. independence) and leadership is more associated with self-employment than perhaps job security, which is more associated with public sector employment. Thus, if on average job security is of the highest importance to students then, this might explain why perhaps they prefer public sector employment. Also, job attributes tend to vary in their importance across demographics. For example, Bundy and Norris (1992) found that students aged 25 and older, placed higher importance on starting salary than younger counterparts. Likewise, students with family responsibilities e.g. dependants are more likely to be concerned about job security, since they must rely on a steady source of income to meet family expenses.

4.4.5 Self-efficacy

This section adopts Schwarzer and Jerusalem's (1995) General Perceived Self-Efficacy Scale to measure of the self-efficacy of participants. It is a 10 item scale, commonly for used in social cognitive studies because of its consistency and the positive psychometric evidence associated with it. It taps beliefs in an individual's ability to handle new and difficult tasks within a variety of domains. An example of an item is *'I can handle whatever comes my way'* to which, participants are expected to respond by choosing a value on a Likert scale. The Likert scale used by Schwarzer and Jerusalem's (1995) is a 4-point scale with the anchors, not true at all and exactly true. Higher total general self-efficacy scores, which includes scores of above the median total scores, indicate higher levels of general self-efficacy while, lower total scores of 10 to 30, indicates lower levels of self-efficacy. This study uses a

general measure of self-efficacy instead of a domain-specific one such as ESE, which a lot of researchers seem to use. The reason for this to test whether GSE can indeed capture entrepreneurial intentions across different domains as authors, Chen, Gully and Eden, (2004) claim. According to them, GSE can capture an individual's perception of their ability to successfully perform a variety of tasks across a variety of situations. Therefore, it should be able to sufficiently predict individuals' entrepreneurial intentions. 2004).

4.5 Pre-testing

Sample questionnaires were given to five randomly chosen undergraduate students from the same population. The purpose of this was to establish whether the questionnaires were easy to understand and complete. The students chosen for the pre-testing found the questionnaires relatively easy to complete. However, one respondent seemed to be unclear about how many values on the risk Likert scale that he was allowed to choose. Because of this incident, the author decided to include specific instructions beside questions to ensure that respondents understand questions better and respond appropriately. Instructions such as, "please circle one answer" were included beside questions, were possible and as necessary.

4.6 Testing of hypotheses

This section describes some of the steps taken to condense the data, derive binary variables and thus, develop relevant regression models. The section will also describe the series of regression models that are used to test the hypotheses pertaining to this study. The data is analysed using STATA software.

In order to test the hypotheses pertaining to this research, a series of binary logistic regression models are employed. Binary logistic regressions are most appropriate for when the sample contains categorical variables taking values of 0 and 1, which is the case for the data set used.

4.7 Model specifications

The first set of models tests the dependent variable "self-employment" against other sample variables. The first model incorporates all the explanatory variables, which are predicted in the hypotheses to be correlated with the choice of self-employment. In the second model, demographic variables are dropped and only the main explanatory variables of interest in this study i.e. willingness to take risks (general risk seeking, career risk seeking) and self-efficacy (general self-efficacy) are included in the model.

Model 1:

Pr(Self-employment = 1) = α + β_1(general risk seeking) + β_2(career risk seeking)+ β_3(general self-efficacy) -β_4(Female) - β_5(age≥25)+ β_6(never married) - β_7(dependants) - β_8(public sector employed mother) – β_9(public sector employed father)+ β_{10} (business degree) + β_{11}(cumulative GPA≥ 3.1)

Model 2:

Pr(Self-employment = 1) = α + β_1 (general risk seeking) + β_2 (career risk seeking) + β_3 (general self-efficacy)

The second set of models tests the dependent variable "private sector" against other sample variables. Model 3 incorporates all the explanatory variables, which are predicted in the hypotheses to be correlated with the choice of self-employment. In model 4, demographic variables are again dropped thus, leaving only the willingness to take risks and self-efficacy as explanatory variables.

Model 3:

Pr(Private sector = 1) = α + β_1(general risk seeking) + β_2(career risk seeking) + β_3(general self-efficacy) -β_4(Female) - β_5(age≥25) + β_6(never married) - β_7(dependants) - β_8(public

sector employed mother) – β_9 (public sector employed father) + β_{10} (business degree) + β_{11}(cumulative GPA$\geq$ 3.1)

Model 4:

Pr(Private sector = 1) = α + β_1 (general risk seeking) + β_2 (career risk seeking) + β_3 (general self-efficacy)

The third set of models tests the dependent variable "paid private sector" against other sample variables. Model 5 incorporates all the explanatory variables, which are predicted in the hypotheses to be correlated with the choice of self-employment. In model 6, demographic variables are again dropped thus, leaving only the willingness to take risks and self-efficacy as explanatory variables.

Model 5:

Pr(Paid private sector = 1) = α + β_1(general risk seeking) + β_2(career risk seeking) + β_3(general self-efficacy) -β_4(Female) - β_5(age$\geq$25) + β_6(never married) - β_7(dependants) - β_8(public sector employed mother) – β_9 (public sector employed father) + β_{10} (business degree) + β_{11}(cumulative GPA$\geq$ 3.1)

Model 6:

Pr(Paid private sector = 1) = α + β_1 (general risk seeking) + β_2 (career risk seeking) + β_3 (general self-efficacy)

In order to get a clearer picture of what determines the employment choices of the sample of final year undergraduates, it is important to test how individual character trait and

background variables interact with respondents' willingness to take risks. To do this, binary logistic regression is used and the models are shown below.

Models of willingness to take risks:

Pr (General risk seeking = 1) = $\alpha + \beta_1$ (career risk seeking) + β_2 (general self-efficacy) - β_3 (female) – β_4 (age≥25) + β_5 (never married) – β_6 (dependants) – β_7 (public sector employed mother) - β_8 (public sector employed father) + β_9 (business degree) + β_{10} (cumulative GPA≥ 3.1)

Pr (Career risk seeking = 1) = $\alpha + \beta_1$ (general risk seeking) + β_2 (general self-efficacy) - β_3 (female) – β_4 (age≥25) + β_5 (never married) – β_6 (dependants) – β_7 (public sector employed mother) - β_8 (public sector employed father) + β_9 (business degree) + β_{10} (cumulative GPA≥ 3.1)

5 Results reporting

This chapter presents the key results that help to answer the main research questions of this study. The chapter is organised in four parts. The first part will provide some basic demographic information about the sample respondents. Then, respondents' responses pertaining to questions on risk perception, willingness to take risk, employment preferences, and job attribute ratings are presented. The second part will be a discussion of the results from the series of regression analysis conducted on the data set. In this part, the significance of regression estimates for the six binary logit models described in the methodology chapter are discussed in details.

5.1 Demographic profile of sample respondents

A total of 300 questionnaires were distributed and a total of 266 were received, a higher than anticipated response rate of about 88.7%. This study was conducted amongst undergraduate students in their final year of study on courses that take as long as 4 to 6 years. Therefore, majority of the participants belong to the 25-33 and 18-24 age categories. As can be seen from the bar chart in Figure 1 below, almost 50% of the participants fall under the 25-33 age bracket and around 41% fall under the 18-24 age bracket, with only about 8% the sample belonging to the other age categories.

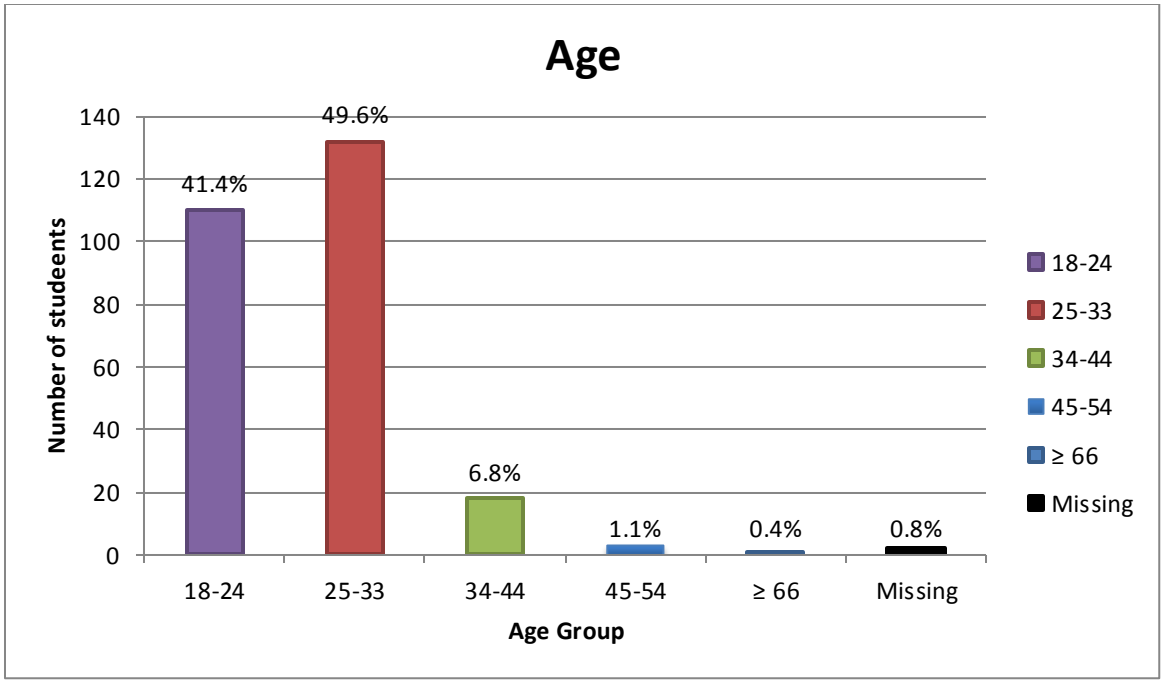

Figure 1: Age Distribution

From the pie chart in Figure 2, which shows the gender mix of the sample, it appears that the number of male respondents outweighs the number of female respondents in the sample. Females represent around 47% of the subject pool while their male counterparts represent the remaining 53% of the sample. This difference does not appear to be alarming in anyway especially, given the fact that participants for the sample were selected in a random fashion.

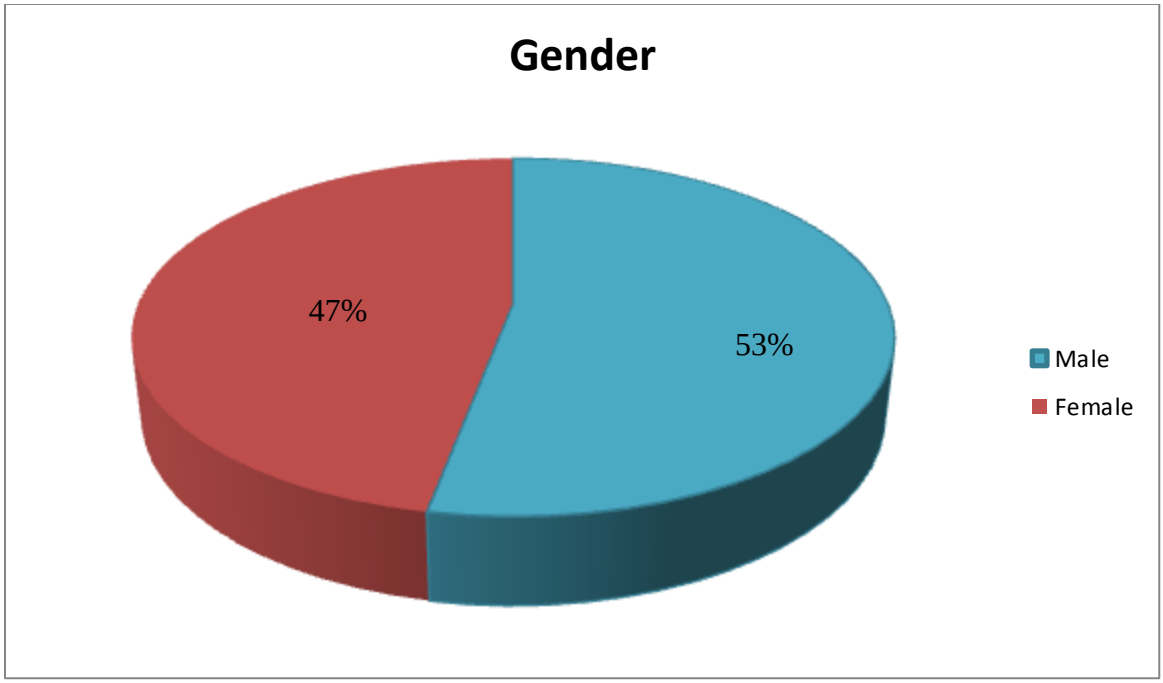

Figure 2: Gender mix

As expected, the majority of the respondents have never been married before. This is reasonable, considering that the study was carried out on undergraduate students. As can be seen from the bar chart in Figure 3 below, approximately 85% of the sample respondents have never been married before while only around 14% are either married or have been married before.

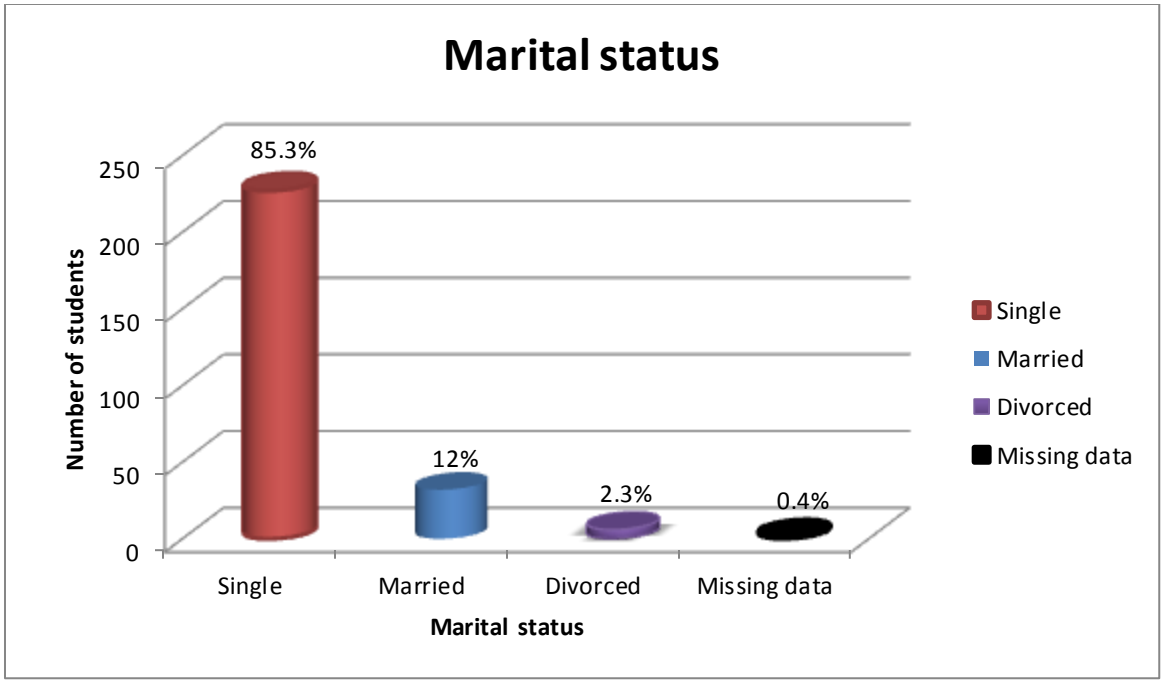

Figure 3: Marital status of respondents

The number of respondents with dependants is somewhat higher than would be normally expected for a sample of undergraduate students. From the pie chart in Figure 4 we can see that around 39% of the respondents claim to have dependants. Perhaps the fact that majority of the students are between 25 to 33 years old, would explain why more respondents have dependants to look after. Students between ages 25 to 33 years are probably no longer the responsibility of their parents and instead, may be charged with the responsibility of providing for younger siblings or elderly parents.

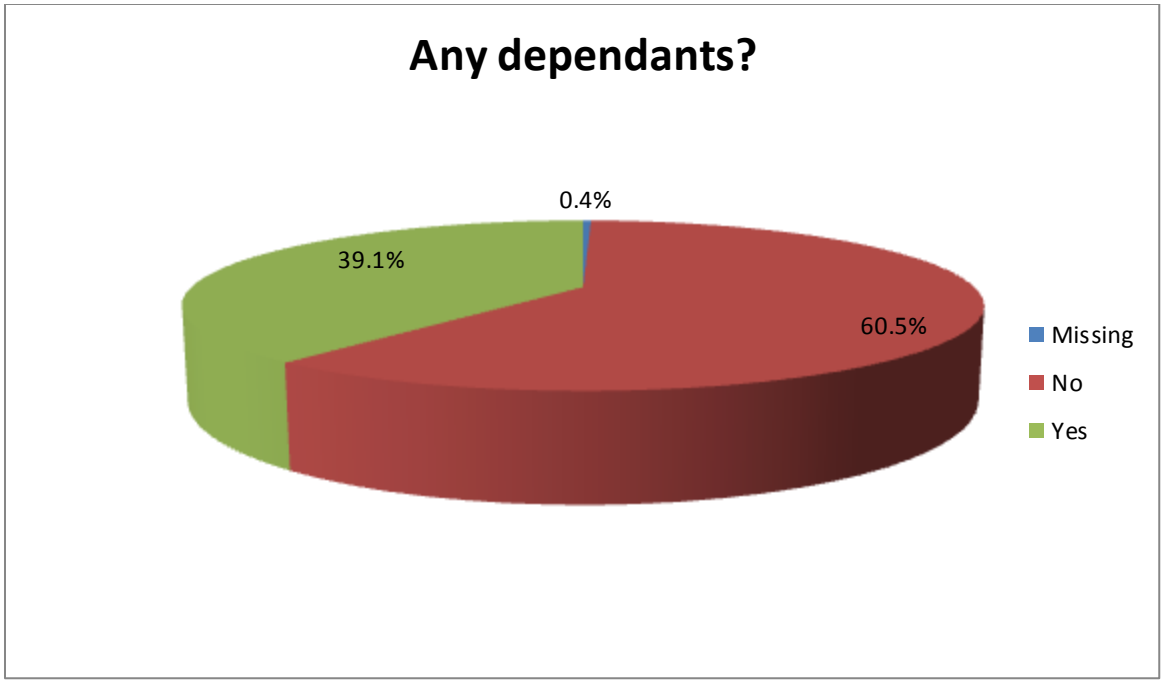

Figure 4: Respondents with and without dependants

From the chart shown in Figure 5, it appears that overall, respondents' fathers are more educated than their mothers, who appear to be more likely than their husbands to own private businesses[4]. As can be seen from the bar chart in Figure 6, the percentage of mothers in self-employment, which is approximately 44%, outweighs the combined 35% of mothers in paid public sector and private sector employment.

Perhaps an explanation for this finding is in a recent study by Margolis (2014), which suggests that self-employment in some countries, particularly in developing countries, might be more of constraint, than a choice. The reasoning here is that, people become self-employed because labour market conditions are either unfavourable to them or because they simply do not fit into any wage sector. In other words, self-employment for such people is not necessarily an option as much as it is a necessity. Therefore, it could be that mothers, who lack sufficient educational qualifications or those who feel that they do not fit into any wage

[4] Compare the percentage of self-employed mothers (44.4%) to self-employed fathers (28.8%), shown in figure 6.

sector, either public or private, find that starting up their own private businesses, helps pay some bills and provides for their families.

However, looking at the summary statistics table in Appendix (2), the difference between the percentage of mothers who have obtained at least a diploma certificate, and those who have obtained secondary school certificate at most, does not seem to be that much[5]. Therefore, it could just be that mothers, who choose to become self-employed, can afford to take this risk because they have spouses on salaried jobs to support them. Nonetheless, this interpretation should only be taken at face value because the willingness to take risks of the respondents' parents is unknown. Perhaps if this is tested in future studies, it could provide stronger evidence to back up this suggestion. Given the time constraints of this study, it was not feasible to conduct a separate survey testing parents risk attitudes and this why the author uses parents' education and parents' occupational status as proxy measures for parental risk attitudes.

With respect to paid employment, the number of parents with public sector jobs seems to be higher than the number of parents with private sector paid jobs. Perhaps this more a factor of the insufficiency of private sector organisations providing jobs in Calabar, than of parental risk attitudes. Unlike some state capitals in Nigeria, for example, Lagos and the Federal capital territory, Abuja, Calabar is not particularly industrialised. There are very few if any private companies that operate at the capacity of employing a significant amount of the states' labour force. The main and possibly the only constituents of the private sector are small-to-medium sized sole-proprietorships, partnerships, and very few financial services institutions. Whereas, the public sector provides tonnes of job opportunities for the states indigenes, in either civil or public service segments, across various ministries, and within

[5] Compare 53.8% of respondents with mothers educated up to tertiary level to 46.2% of respondents whose mothers have attained only a high school certificate at most.

higher education institutions including the University of Calabar and Cross River University of Technology (CRUTECH), which are respectively federal and state government owned. Therefore, it makes sense that majority of the parents in aid employment seem to be working in the public sector. Perhaps a comparison of this trend with data obtained from other geographic regions within Nigeria might be an interesting avenue to explore in future researches.

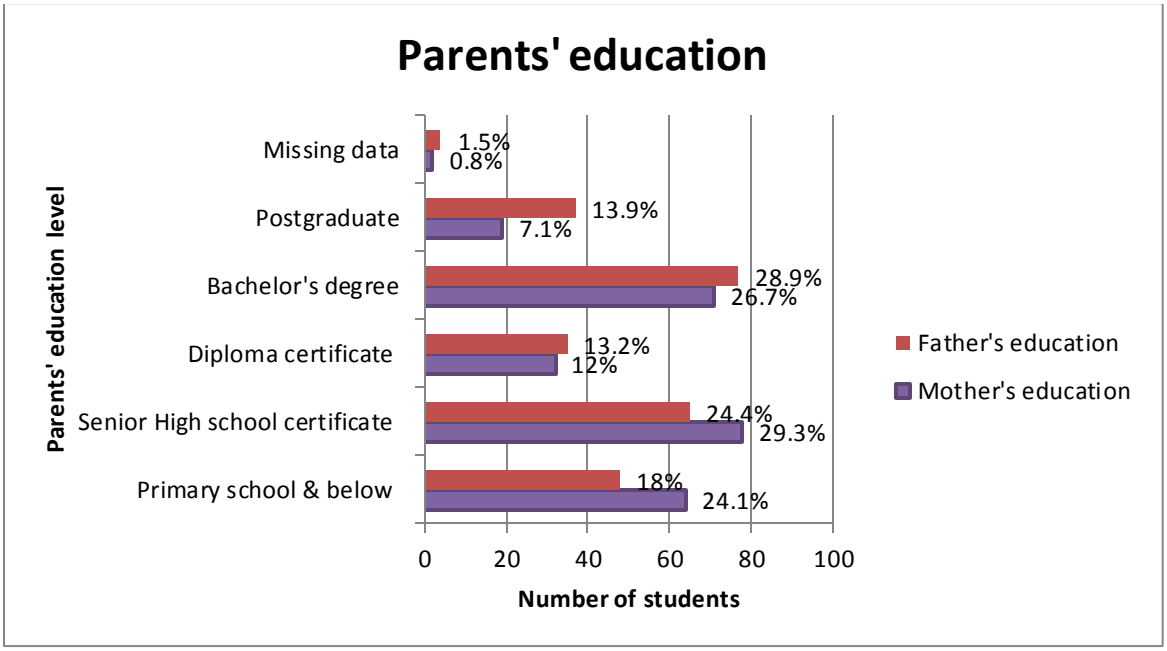

Figure 5: Parents' education

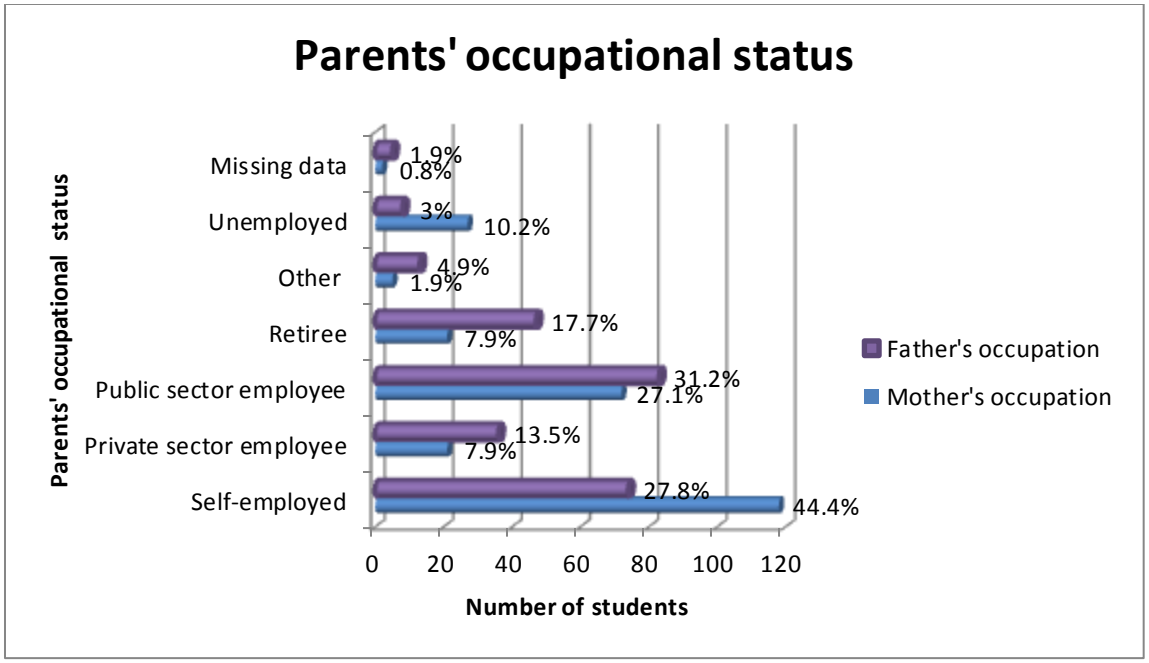

Figure 6: Parents' occupational status

The pie chart below in Figure 7 shows the distribution of the respondents on the basis of their respective faculties i.e. departments. As stated previously, five faculties were chosen for the questionnaire distribution. The five faculties are representative of business, science and arts and education courses. As can be seen from the chart, over half of the sample is composed of business students enrolled on courses within management science and social science faculties. But the majority of the respondents are students on management science courses, studying towards degrees in accounting, banking & finance, marketing and management.

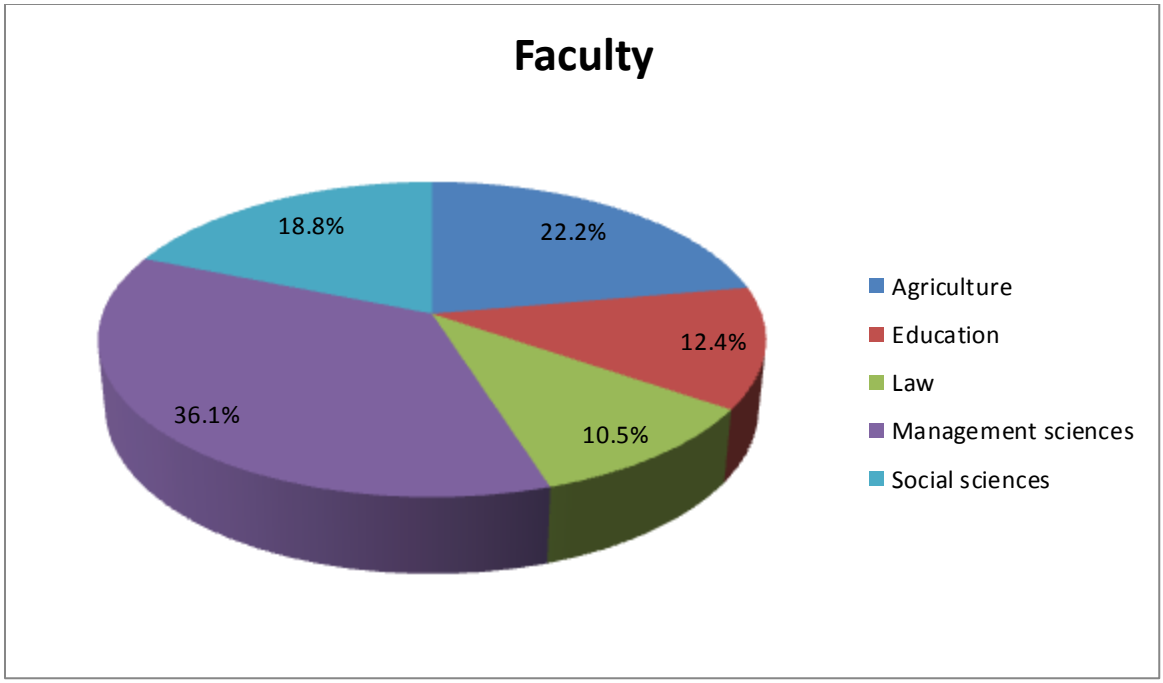

Figure 7: Sample distribution by faculty

The bar chart in Figure 8 below provides more details about the degree major areas of from the sample respondents. As can be seen from this chart, Economics students, who fall under the faculty of social sciences, represent the highest proportion of the sample respondents, followed closely by law and management students. The least number of respondents are students from the adult and formal education degree programme.

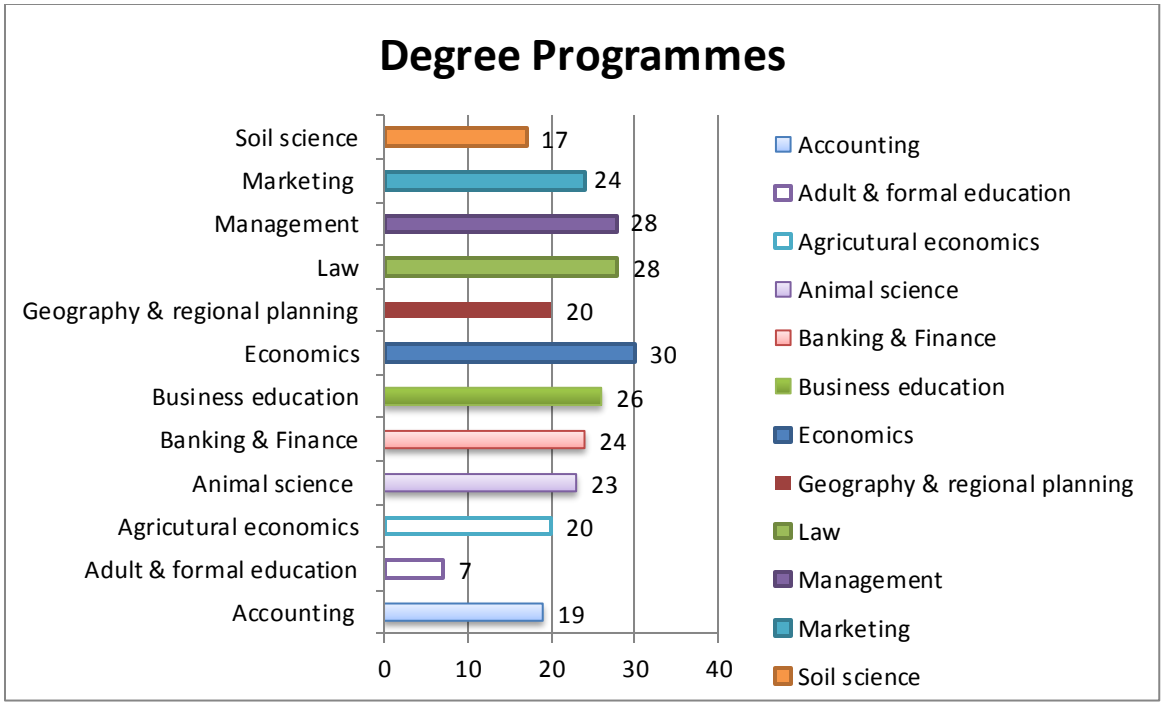

Figure 8: Sample distribution by degree programmes

With regards to the cognitive abilities of the sample respondents, the chart in Figure below shows the distribution of the respondents on the basis of their cumulative GPA attainment, which as indicated earlier, indicates cognitive ability. As can be seen from the chart, majority of the sample respondents seem to be intelligent students with considerably high cumulative GPAs. The combined percentage of respondents with GPAs of 3.1-4.0 and 4.1-5.0 is around 55%, which is more than half of the sample respondents. Perhaps this could be interpreted to mean that majority of the respondents possess high cognitive abilities, are extremely hard working or have exaggerated their GPA attainment. For the purpose of this study, the present author interprets this to mean that majority of the respondents are students with high levels of cognition and this, are capable of making informed and effective decisions.

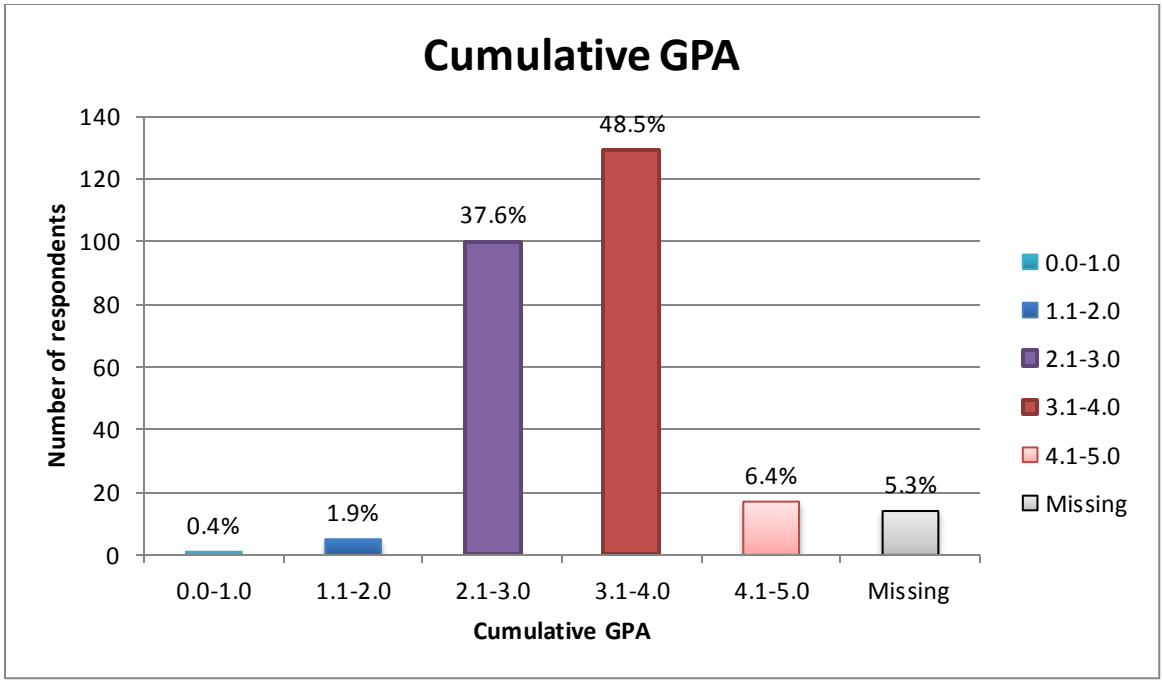

Figure 9: Sample distribution by Cumulative Grade Point Average

The bar chart in Figure 10 below represents a summary description of the perceptions that the sample of final year undergraduates have about risk in general. From the chart, it is obvious that the majority (around 57%) of the respondents correctly perceive risk to imply a combination of opportunity and threat. However, more respondents seem to associate the term risk with an opportunity rather than a threat[6]. Perhaps this explains why with respect to career specific contexts, the number of risk seeking respondents exceeds the number of risk averse respondents (see Figure 12). If more students believe that taking risky decisions pertaining to their careers will bring about more positive opportunities for them, then, they are more likely to be willing to do so.

About 4% of the respondents claim to be unaware of the general meaning of, while around 1% failed to respond to this question. This could be interpreted to mean that a small fraction

[6] Compare 19.5% of respondents who perceived risk to be an opportunity to 18.4% who perceived risk to mean a threat.

of final year undergraduates either find this terminology somewhat ambiguous or perhaps have entirely different ideas about what the risk generally implies.

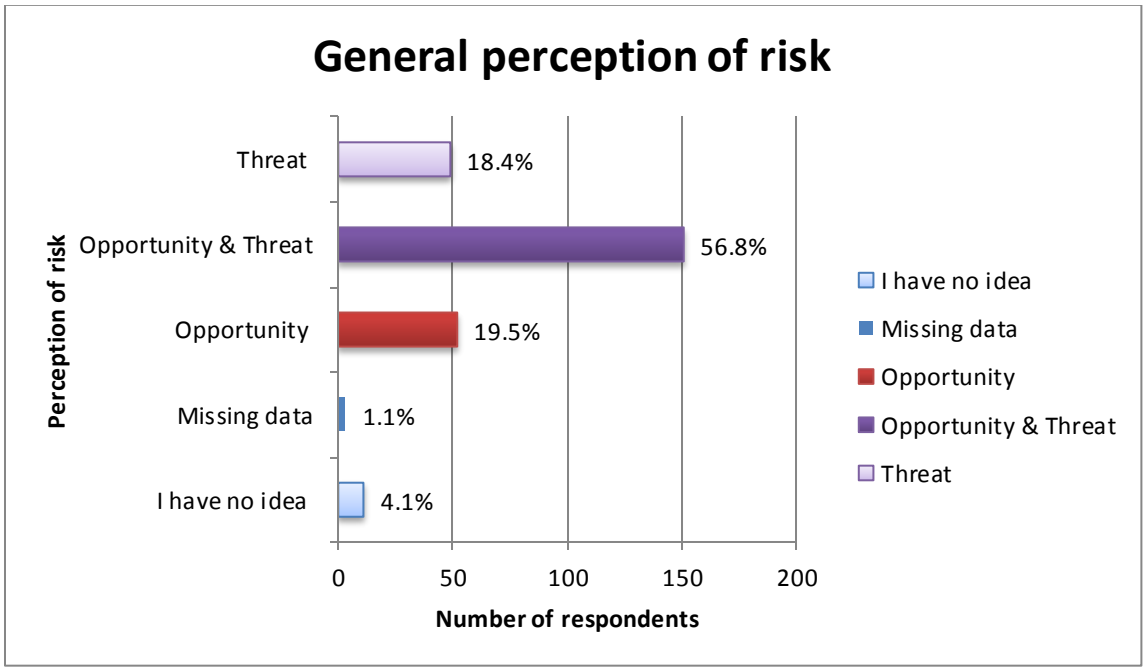

Figure 10: General perception of risk

With regards to general risk taking, the number of risk averse respondents seems to outweigh the number of risk seeking students. As can be seen from the chart in Figure 11 below, approximately 46% of the respondents consider themselves to be risk takers, while around 48% are generally reluctant to take risks.

The risk taking propensity of the respondents changes with regards to a career specific risk context. As can be seen from the chart in Figure 12, the amount of risk willing respondents increases by approximately 3%, bringing the number of risk seeking and risk averse students to about 49% and 44% respectively. Although only a small percentage difference is observed here, these results still lend support to previous studies (Byrnes et al. 1999 and Schubert et al.1999, Harrison & Jenkins, 2006 etc.) which suggest that people's risk attitudes vary from one context to another. Perhaps regression analysis results will shed more light on this aspect.

The small percentage (6%) of non-responses observed is interpreted in this study to be a signal of some degree of aversion on the part of the sample respondents. Perhaps this group of respondents found the task of self-assessing their willingness to take risks overwhelming and as a result, chose to avoid this survey question.

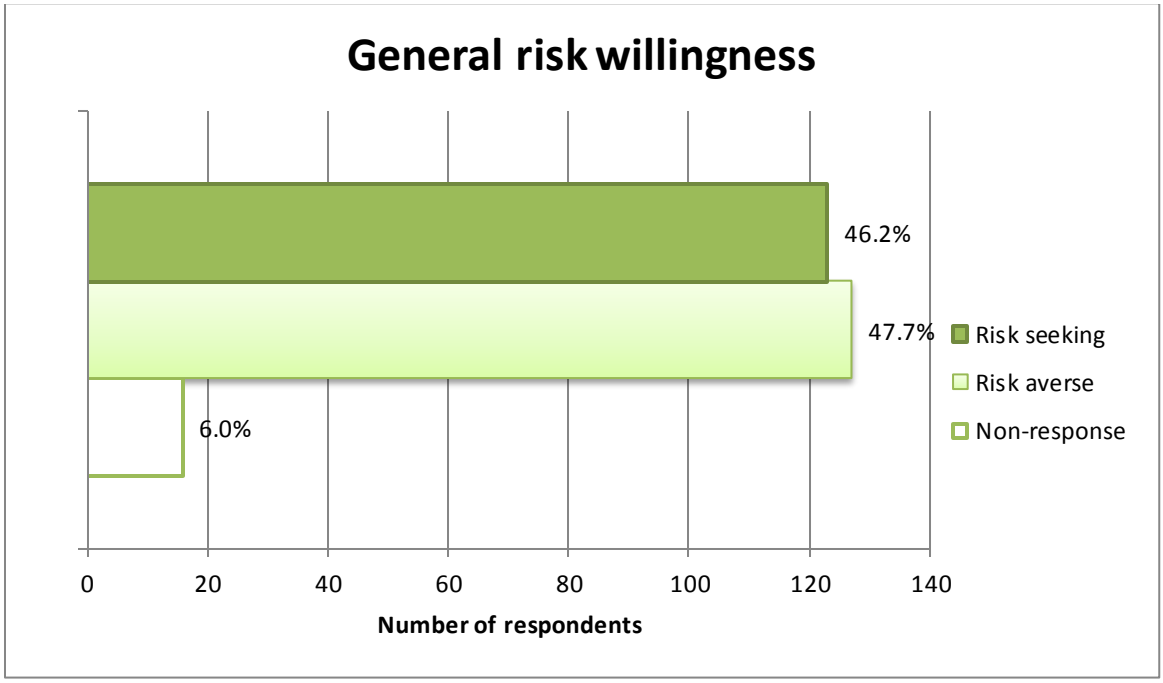

Figure 11: General willingness to take risks

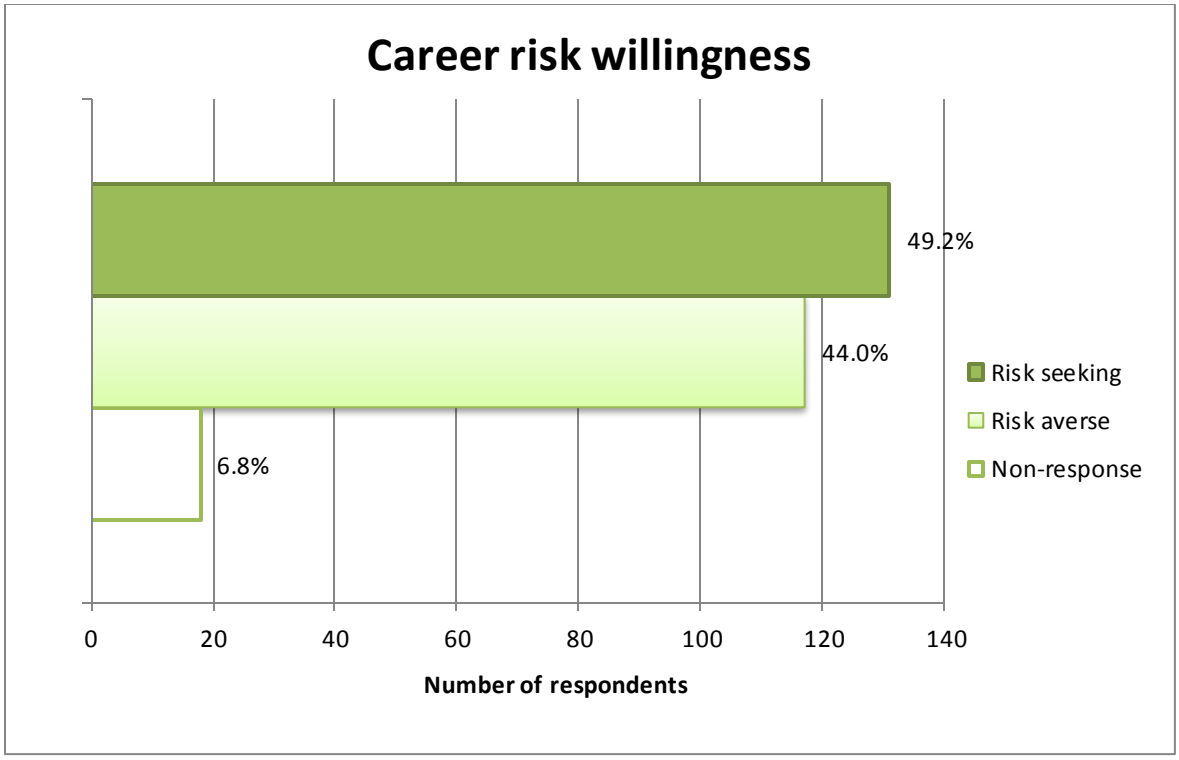

Figure 12: Willingness to take career risks

The charts below in Figures 13 and 14 show the distribution of sample respondents on the basis of their occupational sector preferences. As can be seen from the first chart, the number of the respondents who prefer formal wage employment exceeds the number of respondents who prefer the more informal option of self-employment. Around 35% of the sample respondents prefer to be business owners, while about 57% of them prefer to work for pay, particularly within the public sector[7]. Given that over half of the sample respondents are undergraduate students enrolled on business courses, one would expect the private sector to be the more popular sector of choice, but this is not the case. Perhaps an explanation for this stems from previous findings by Aminu (2010), who claimed that Nigerians with higher levels of education are shifting away from formal private sector jobs towards the public

[7] The number of respondents who prefer to be employed within the public sector is approximately 15% higher than the number of respondents who prefer a private sector job.

sector, where income inequality is less pronounced. Regression analysis results will perhaps shed more light on this aspect. Only around 6% of the respondents were indifferent between employment alternatives.

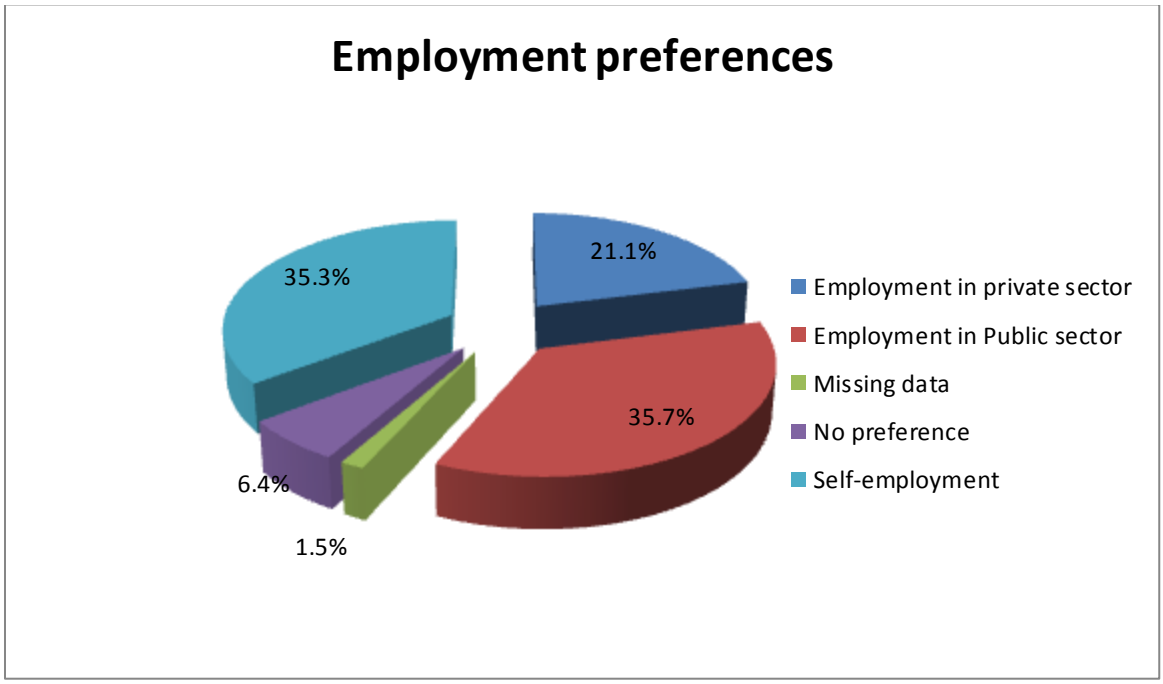

Figure 13: A pie chart showing respondents' employment preferences

In the meantime, the employment preferences of the respondents will be discussed on the basis of the respondents' degree major areas i.e. faculties. It is believed that this would give a more interesting picture of undergraduate students employment choices vary. Figure 14 below gives a summary description of how employment preferences varied between sample respondents from different degree major areas. Just as expected, self-employment seems to be the dominant choice amongst business students enrolled on management science and social science courses. This is no surprise, considering that business students as part of their curriculum are groomed to someday become frontrunners of large corporations or entrepreneurs. Similarly, the public sector is the dominant choice amongst students enrolled on agricultural science and education courses. Again, this is not surprising considering that the agricultural industry takes its roots in the public sector, and is one of the main sources of

Nigeria's GDP per capita income, and the education industry, although now largely privatised, can also be traced back to the public sector.

As suspected, students enrolled in law programs are more inclined towards paid private sector and public sector jobs. A plausible explanation for this was discussed earlier in the literature review section and this is that, the economic costs involved in training to become a legal practitioner, makes self-employment a more unlikely choice for students majoring in law.

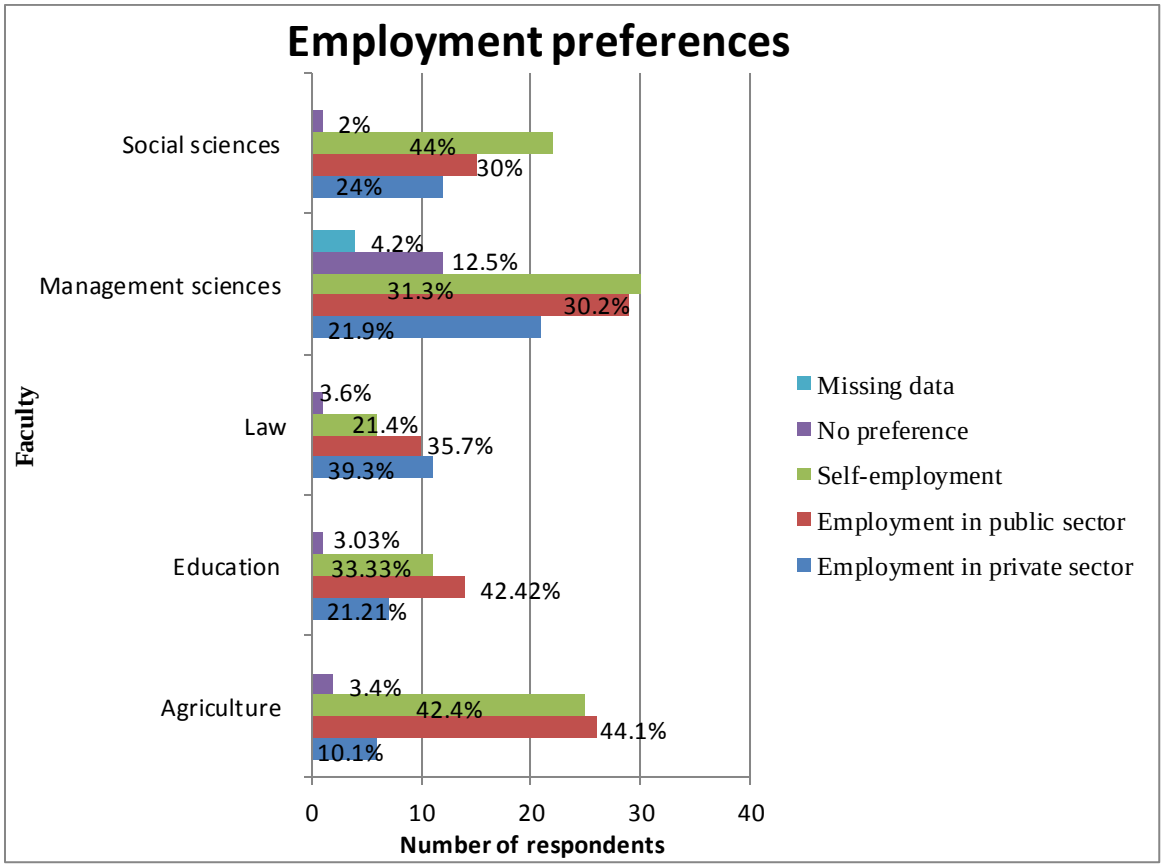

Figure 14: Employment preferences per faculty

As mentioned previously in the methodology section, students were asked to rate how financially risky they perceived each sector to be, on a scale of 0=lowest risk to 10=highest risk. Figures 15 and 16 below show statistics on the respondents' risk ratings for the respective employment alternatives. As can be seen from Figure 15 and Figure 16, the choice of self-employment is perceived to be the most financially risky of the three alternatives, as this has the highest mean rating of 7.04, with a standard deviation of 2.69. The sector with the lowest rating is the public sector, at a mean rating of 5.16 with a standard deviation of 2.54. The public sector was also the sector which the sample respondents were more likely to rate. It has more observations compared to self-employment and the formal private sector, which has the lowest number of observations. A possible explanation for this is that students are perhaps more certain about the financial riskiness of the public sector than they are about self-employment and the formal private sector, and thus, more willing to give their assessment of this sector. Then again, it might just be that some respondents misunderstood this question, as there was a tendency for some respondents to rate only one sector, leaving the other two blank. This was despite steps taken by the author to make this survey item as straightforward as possible.

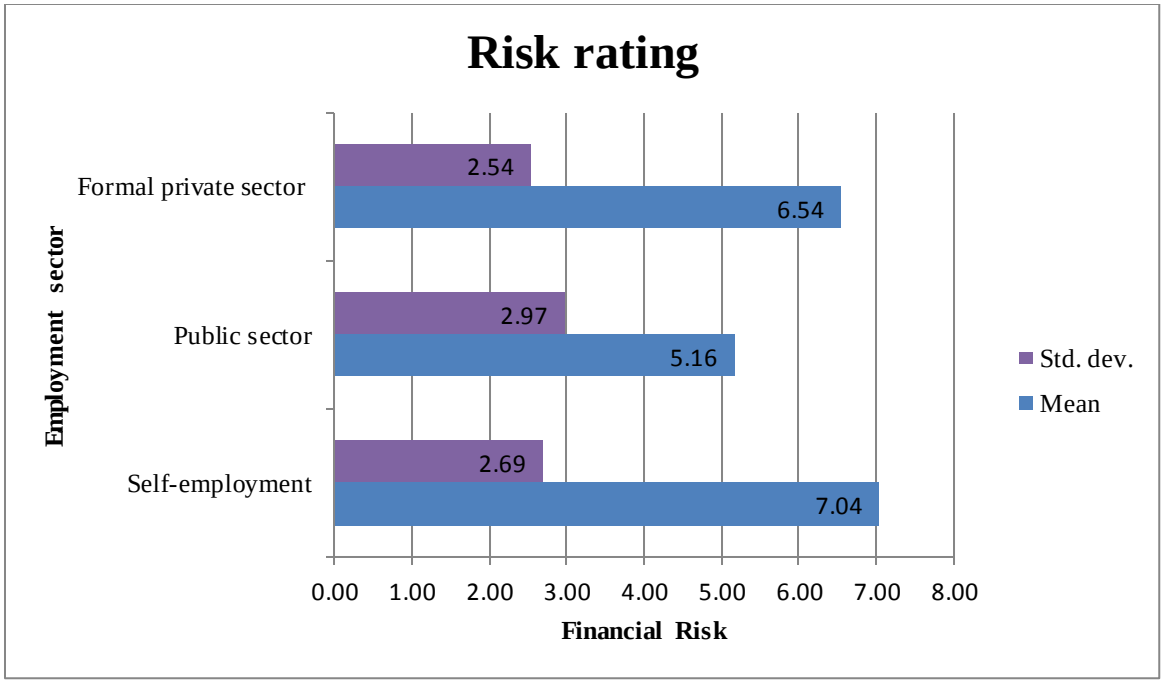

Figure 15: Respondents' perceptions of riskiness for different occupational alternatives

Employment sector	Obs.	Mean	Std. dev.	Min	Max
Self-employment	224	7.040179	2.694154	0	10
Public sector employment	227	5.162996	2.974054	0	10
Private sector employment	213	6.544601	2.544719	0	10

Figure 16: Summary statistics of respondent's sector risk rating

As stated previously in the methodology section, respondents were asked to rate the importance of 7 job attributes in choosing between occupational alternatives. Among the 7 job attributes respondents were asked to rate, advancement & growth, future salary and job security rank highest while, initial salary ranks the lowest, in terms of their importance to final year undergraduate students (see Figure 17). Further analysis of the results by demography revealed that although advancement & growth seems to be the most important job attribute across all the sample respondents, it is valued slightly less by older students above the age of 33, who rated leadership as being the most important job attribute. For this group of students as well as for male students, initial salary is also considered less important than other respondent groups deem it to be.

Future salary and job security have been closely associated with the public sector preference and the majority of the sample respondents selected the public sector as their preferred choice (see Figure 13). Therefore, this supports Bellante and Link's (1981) suggestion that individuals' chosen career sectors are a reflection of their most preferred job attributes.

Descriptive statistics: Job attributes ratings

	Advancement and growth	Autonomy	Future salary	Initial salary	Job security	Leadership	Prestige
Mean	4.45	3.95	4.31	3.62	4.22	4.08	4.13
Median	5.00	4.00	5.00	4.00	5.00	4.00	4.00
Std. deviation	0.88	1.14	0.95	1.04	1.07	1.03	-0.96
Female	4.45	3.91	4.31	3.79	4.28	4.05	4.21
Male	4.45	4.00	4.30	3.45	4.17	4.11	4.05
18-24 years	4.48	3.89	4.28	3.64	4.26	4.09	4.01
25-33 years	4.45	4.01	4.37	3.62	4.18	4.02	4.26
Above 33	4.25	3.89	4.00	3.42	4.25	4.42	3.89
Single	4.46	3.95	4.32	3.63	4.24	4.06	4.11
Married or divorced	4.32	4.06	4.24	3.59	4.14	4.23	4.27
No dependants	4.44	3.95	4.21	3.59	4.22	4.02	4.06
Dependants	4.46	3.97	4.39	3.65	4.22	4.14	4.20

Figure 17: Overall importance ratings of job attributes

5.2 Regression Results

This section discusses regression analysis findings in terms of their significance, similarities or dissimilarities with previous findings discussed in the literature review chapter and their implications. In this section, the quality and statistical fit of the models are also evaluated based on Akaike information criterion (AIC) and Bayesian information criterion. Both criteria measure the relative quality of a statistical model and thus, provide a good basis for model comparison.

5.2.1 Risk attitudes

The findings of regression analysis conducted on the sample of final year undergraduates, reveal significant impacts of gender, family responsibilities and parents' occupational status, on willingness to take risks. The findings also lend significant support to previous studies of contextual risk attitudes, including Byrnes et al. (1999), Schubert et al. (1999), Harrison and Jenkins (2006) and Dohmen et al. (2011) which argue that individuals' willingness to take risks, vary between different contexts. Figure 18 and 19 below, show binary logistic regression estimates with respect to general context risk and career context risk. As can be seen from the tables, there is strongly significant correlation between risk taking in a career context and risk taking in general context. Based the odds ratios for both, it appears that students who are more risk seeking in a career context, are about 6 times more generally risk seeking than their risk averse counterparts, and vice versa. There is also an increasing marginal effect of taking career risks on the probability of taking risks in general. For every unit change in students' willingness to take career risks, the probability of taking risks in general increases by 0.3473. This result is similar to the findings of Dohmen et al., (2011), which reveal significant correlations in willing to take risks across different domains including, car driving, financial matters, sports and leisure, career, and health domains.

As predicted in the hypotheses, gender, dependants and parental occupational status each have a significant impact on willingness to take risks. Female students are found to be significantly more risk averse than their male counterparts in general (Figure 18). However, when it comes to career specific contexts, their level of aversion diminishes and they become more likely to take risk, though not significantly (Figure 19). This finding is not only consistent with the expected sign in the hypotheses, but also lends support to previous studies of gender differences in risk taking including, Jianakoplos & Bernasek (1998), Powell and Ansic (1997), Hartog, Ferrer-i-carbonell and Jonker, (2002) Agnew et al., (2008) etc., which all find women to be more risk averse than men. Furthermore, it shares similarities with the findings of Dohmen et al. (2011), which showed gender differences be significantly less pronounced within the career domain compared with other domains. The correlation between gender and willingness to take risks is significant at a 5% significance level, with a decreasing marginal effect in risk taking propensity of -0.1479, for every unit change in the number of female respondents.

Students with family responsibilities i.e. dependants to provide for, are also found to be significantly more risk averse than students without family responsibilities. The odds of taking risks in general for students with dependants, is about 0.4392 times less the odds for their colleagues who have no dependants to provide for. The odds become even lower with respect to career risk taking. This makes perfect sense and confirms previous suggestions (Bundy and Norris, 1992) that individuals with family responsibilities, are more concerned about the job security and having a perhaps having steady income streams, in order to provide for their families.

Students with mothers, who are employed in the public sector, are also less likely to be risk seeking. However, the impact of this variable is not very strong, and is significant only at a 10% significance level. Similar correlations are observed with respect to public sector fathers

in the career domain, where the impact of having a public sector mother on risk aversion, reduces to become insignificant. The findings for this variable, are not only consistent with predictions in the hypotheses, but equally lend support to previous studies of the impact of parental background on risk taking behaviour such as, Dunn and Holtz-Eakin, (2000) and Guiso and Paiella, (2005)

With respect to career risk taking, business students are found to be less willing to take risks than non-business students. This is a deviation from the expected sign in the hypotheses, and perhaps might be explained by noise in the data, given the randomness of the in the sample distribution across various degree programmes. Perhaps, in future studies, this can be re-examined by analysing equal amounts of respondents per degree major. The impact of having a business degree on career willingness to take risks is not very strong, and is only significant at a 10% significance level.

The coefficient signs for the variables pertaining to, general self-efficacy, age, and parents' education, although consistent with the predictions in the hypotheses, are found to be insignificant. Older students appear to be less willing to take risks but the p-value is not significant enough to conclude that older students form 25 and above more risk averse than younger students below 25. Perhaps, in future studies, the age can be re-examined at different stratas.

Regarding general self-efficacy, although respondents with a higher sense of self-efficacy appear to be more willing to take risks, it is not accurate to conclude that those students who have a higher sense of self-efficacy are more risk seeking, because the p-value is not significant enough for the null hypothesis to be rejected. The same goes for respondents whose parents are university educated. Although they appear to be more willing to take risks, there is not enough statistical grounds to conclude that they are indeed more risk seeking.

Deviations from the expected signs in the hypotheses are with respect to students who have never been married before and students with cumulative GPAs of ≥3.1. Single students, who are expected to more willing to take risks, are found to be less willing to take risks. This result would be similar to the findings of Sunden and Surette (1998), who observed that married individuals were less risk averse than unmarried individuals. However, since the p-value for this variable is insignificant, it would be inaccurate to make such conclusions.

The co-efficient signs obtained for the variable, cumulative GPA≥3.1, appear to be conflicting with respect to general context and career context risks. While students with cumulative GPA≥3.1 appear to be more willing to take risks in a general context, with respect to career risk contexts, they seem to be less willing to take risks. Perhaps the observation of conflicting and insignificant signs, could either be interpreted to be suggestive of the poorness in the quality of cumulative GPA as a proxy for cognitive ability or perhaps, of noise in the data. Again, the p-values associated with this variable are not significant and thus, the null hypothesis of no impact cannot be rejected.

The two models of risk attitudes presented in this section both seem to have a reasonably good fit. The log likelihood and pseudo R^2 for both models are the same. However, the predicted probability (i.e. correctly classified percentage), is higher for the model pertaining to career risk attitudes. The constant terms for both models are insignificant. Both models are thought to be a fairly realistic reflection of the main determinants of final year undergraduate students' risk attitudes.

Logistic regression estimates					
Dependent variable: General risk seeking					
Variable	**B**	**Std. errors**	**P>|z|**	**Odds ratio**	**Marginal effect**
Constant	0.3345	0.8474	0.693	1.3973	_
Career risk seeking	1.9290	0.3420	**0.000**	6.8827	0.3437
General self-efficacy	0.2882	0.3446	0.403	1.3341	0.0514
Female	-0.8300	0.3532	**0.019**	0.4361	-0.1479
Age ≥ 25	-0.8300	0.3679	0.494	0.7774	-0.0449
Never married	-0.3567	0.5273	0.499	0.7000	-0.0636
Dependants	-0.8229	0.3788	**0.030**	0.4392	-0.1466
University educated mother	0.0116	0.3845	0.976	1.0117	0.0021
University educated father	0.0155	0.3999	0.969	1.0156	0.0028
Public sector mother	-0.7829	0.4325	**0.070**	0.4571	-0.1395
Public sector father	-0.0039	0.4520	0.993	0.9961	-0.0007
Business degree	0.5491	0.3543	0.121	1.7317	0.0979
CGPA ≥3.1	-0.2982	0.3319	0.369	0.7421	-0.0531
Log likelihood=	-116.11				
Pseudo R2=	0.2218				
Wald chi2(13)	54.56				
Prob> chi2=	0.0000				
No. of observations=	217				
Predicted probability=	74.65%				

Figure 18: Regression estimates-General risk attitudes

Logistic regression estimates					
Dependent variable: Career risk seeking					
Variable	**B**	**Std. errors**	**P>|z|**	**Odds ratio**	**Marginal effect**
Constant	-0.0371	0.8448	0.965	0.9635	_
General risk seeking	1.9382	0.3441	**0.000**	6.9032	0.3441
General self-efficacy	0.4312	0.3443	0.210	1.5391	0.0768
Female	0.2070	0.3568	0.562	1.2300	0.0369
Age ≥ 25	-3.1804	0.3712	0.392	0.7276	-0.0566
Never married	-0.1775	0.5225	0.734	0.8373	-0.0316
Dependants	-0.9421	0.3807	**0.013**	0.3898	-0.1678
University educated mother	0.4560	0.4643	0.326	1.5779	0.0812
University educated father	0.2359	0.4033	0.558	1.2661	0.0420
Public sector mother	-0.6131	0.4491	0.172	0.5417	-0.1092
Public sector father	-0.6800	0.3840	**0.077**	0.5066	-0.1211
Business degree	-0.5955	0.3560	**0.094**	0.5513	-0.1061
CGPA ≥3.1	0.0343	0.3318	0.918	1.0349	0.0061
Log likelihood=	-116.11				
Pseudo R2=	0.2217				
Wald chi2(13)	48.50				
Prob> chi2=	0.0000				
No. of observations=	217				
Predicted probability=	75.58%				

Figure 19: Regression estimates-Career risk attitudes

5.2.2 Self-employment choice

Figures 20 and 21 below show binary logistic regression estimates for the two models suggested earlier in the methodology chapter. As can be seen from the tables, general willingness to take risks and career willingness to take risks both have a direct and strongly significant impact on self-employment choice. These results are not only consistent with the predictions in the hypothesis, but also lend significant support to previous studies of self-employment such as, Kihlstrom & Laffont (1979), Parker (1997), Barsky et al. (1997) Cressy (2000) , Hartog et al. (2002), Cramer et al. (2002), Ekelund et al. (2005), Dohmen et al. (2011), Caliendo, Foss and Kritikos (2009), which all found a significant influence of individuals risk attitudes on their probability of self-employment. Both variables predict the probability of self-employment at a 1% significance level, with increasing marginal effects of 0.1858 and 0.5747, respectively. Of course the increasing marginal effect of willingness to take career risks on self-employment is much higher than that of general willingness to take risks. Thus, suggesting that student's career risk attitudes are a better predictor of their choice to become self-employed than their general risk attitudes.

The odds of self-employment with respect to students' career risk attitudes, are a by far greater than the odds pertaining to general risk attitudes. While the odds of self-employment for career risk seeking students is about 402 times the odds for career risk averse students, the odds of self-employment for generally risk seeking students on the other hand, is only about 7 times higher than the odds for students who are generally risk averse. Such a massive difference in these odds, perhaps confirms that context indeed matters when dealing with self-reported willingness to take risks, as Dohmen et al., (2011) suggested. With self-reported measures of risk attitudes, individuals are allowed an abundance of freedom in assessing their risk tolerance and as such, there will generally be a tendency for respondents to exaggerate or

overstate their willingness to take risks with respect to different contexts. This appears to be the case here for students with regards to career risk willingness.

With regards to the impact of other explanatory variables on self-employment choice, this study finds that the decision to become or not to become self-employed, is significantly related to having family responsibilities (i.e. dependants), or a mother who is employed in the public sector. As expected, students whose mothers are employed in the public sector are significantly less likely to choose self-employment. This finding lends significant support to previous empirical discussed earlier, such as, Guiso and Paiella, (2005) and Caner and Okten, (2010), which both found significant correlations between parents' occupational status and individuals' sector choice. This finding further supports the view that parents either by way of genetics, parenting styles or through deliberate efforts can transfer their risk attitudes and behavioural tendencies to their children. The coefficient sign for the variable public sector father is also consistent with predictions in the hypotheses. However, no significant effect is found for it.

Rather surprisingly, students with dependants are found to be significantly more likely to choose self-employment than students without dependants. The correlation is significant at a 5% significance level, with an increasing marginal effect of 0.1348, suggesting that for every unit increase in the number of students with dependants, the probability of self-employment being chosen, will increase by 0.1348. This result is clearly a deviation from predictions in the hypotheses and is noteworthy, particularly since students with dependants are contrastingly more risk averse in both general and career contexts (Figures 18 and 19). Although students with dependants are roughly 4 times more likely to choose to self-employment than students without dependants, they are significantly less risk seeking, thus suggesting that other reasons for them choosing self-employment that might be unrelated to risk attitudes.

Perhaps the results say more about self-employment in Nigeria than they do about risk attitudes. It is possible that students with family respondents already anticipate unfavourable labour market conditions in the formal wage sector and thus, have their minds pre-set on self-employment as the next best alternative means of providing for their families. This will thus imply that, self-employment may be more of a necessity or survival means, than a choice for some Nigerians.

An alternative explanation is that many of the respondents, who have dependants, are perhaps already private business owners, either paying their way through university or providing for their families from the earnings that they make from the business. If this is the case, such students are more likely to continue down the path of self-employment, especially if they have found reasonable success in their business. Perhaps in future studies, this variable should be tested by controlling for this aspect.

The coefficient sign for the variables, age, never married, business degree and university educated mother and father, are consistent with the predictions in the hypotheses. However, they have no significant impact on self-employment choice. Although older students appear to be less likely to choose self-employment, the p-value for this variable is not significant enough to conclude that older students, above 24, are more inclined towards self-employment than their younger students.

Likewise, although it appears that respondents studying business majors are more likely to choose self-employment, the p-value is not significant enough to conclude that business students are more inclined towards self-employment than non-business students. The same goes for respondents who have never been married before and those whose parents are university educated. Although they appear to be more likely to take choose self-employment,

there is not enough statistical grounds to conclude that they are indeed more inclined towards self-employment.

Deviations from the expected signs in the hypotheses are with respect to gender (female) and students who have a higher perceived self-efficacy and cumulative GPAs of ≥3.1. Females are found to be more likely to choose self-employment as a career. Although the results are not significant, this is noteworthy because it lends support to previous suggestions in the literature, that people's willingness to take risks varies from one context to another. During earlier discussions of the findings pertaining to the risk attitudes of the sample respondents, it was established that although female students are significantly more risk averse in a general context, they are more willing to take risks when it comes to decisions concerning their career, though not significantly. Therefore, this might explain why female students are more likely to choose self-employment. An alternative explanation might be that the pressures which Nigerian women face with regards to settling down and raising children, coupled with the challenges of being able to do this efficiently within the formal wage sector, causes anxious students to choose self-employment, which perhaps allows them more freedom and room to properly raise a family.

Regarding general self-efficacy, the unexpected negative coefficient sign might be an indication that general self-efficacy is not as good a predictor of self-employment choice as perhaps specific efficacy variables such as ESE, which as discussed earlier, has been found by many researchers to be directly associated with self-employment. The significance of general self-efficacy on self-employment increases in the second model to a 10% significance level but, a negative coefficient sign is still observed.

The unexpected negative coefficient for cumulative GPA may be linked to the fact that individuals with high cognitive ability perceive their wage prospects to be on average

significantly higher in the formal wage sector compared with low to average cognisant individuals. If this is the case, then, such individuals may already have their minds set on specific positions, perhaps within the private wage sector. An alternative explanation is perhaps that cumulative GPA is not particularly be the best measure of cognitive ability since, students who work extra hard may be able to obtain high GPAs, without necessarily having high levels of cognition. In future studies, cognitive ability should be re-examined using a much stronger measure of cognitive ability. For example, students' IQ levels can be used to measure cognitive ability, as was the case in Booth and Katic (2013).

With regards to the statistical quality of the models, it is difficult to precisely say which model is the better of the two models. This is because both have significantly different number of explanatory variables. However, the first model in addition to having a higher log likelihood, pseudo R^2 and predicted probability, also has the minimum AIC, which balances the goodness of fit and the complexity of the model. Therefore it might be the better predictor of self-employment choice for the sample of undergraduates. But then again, comparing the model BICs, it appears that the evidence against a higher BIC is much stronger in the first model, which has a BIC of about 195.7 compared to the BIC of second model which is about 174. Therefore, statistical quality is a fairly subjective matter with regards to these two models and for this reason, both models are accepted here.

Model 1: Logistic regression estimates					
Dependent variable: Self-employment					
Variable	**B**	**Std. errors**	**P>|z|**	**Odds ratio**	**Marginal effect**
Constant	-6.6628	1.8013	**0.000**	0.0013	_
General risk seeking	1.9384	0.5632	**0.001**	6.9479	0.1858
Career risk seeking	5.9963	1.1484	**0.000**	401.9218	0.5747
General self-efficacy	-0.7828	0.5098	0.125	0.4571	-0.0750
Female	0.6728	0.5327	0.207	1.9598	0.0645
Age ≥ 25	-0.2265	0.5387	0.674	0.7977	-0.0217
Never married	1.1715	0.8058	0.146	3.2268	0.1123
Dependants	1.4069	0.6829	**0.039**	4.0834	0.1348
University educated mother	0.3797	0.6316	0.548	1.4619	0.0364
University educated father	0.0284	0.6068	0.963	1.0288	0.0027
Public sector mother	-1.4559	0.6656	**0.029**	0.2332	-0.1395
Public sector father	-0.0774	0.5537	0.889	0.9255	-0.0074
Business degree	0.1815	0.4885	0.710	1.1990	0.0174
CGPA ≥3.1	-0.4985	0.5094	0.328	0.6074	-0.0478
Log likelihood=	-60.68				
Pseudo R2=	0.5539				
Wald chi2(13)	49.18				
Prob> chi2=	0.0000				
No. of observations=	202				
Predicted probability=	87.13%				
AIC=	149.36				
BIC=	195.67				

Figure 20: Regression estimates- Self-employment Model

Model 2: Logistic regression estimates					
Dependent variable: Self-employment					
Variable	**B**	**Std. errors**	**P>|z|**	**Odds ratio**	**Marginal effect**
Constant	-4.3924	0.7703	**0.000**	0.0124	_
General risk seeking	1.5582	0.4295	**0.000**	4.7500	0.1728
Career risk seeking	4.4554	0.7596	**0.000**	86.1025	0.4940
General self-efficacy	-0.7058	0.4146	**0.089**	0.4937	-0.0783
Log likelihood=	-76.2154				
Pseudo R2=	0.4823				
Wald chi2(3)	61.18				
Prob> chi2=	0.0000				
No. of observations=	220				
Predicted probability=	84.55%				
AIC=	160.43				
BIC=	174.01				

Figure 21: Regression estimates- Self-employment Model 2

5.2.3 Private sector choice

Figure 22 and 23 below, show binary logistic regression estimates for the two models of private sector choice suggested earlier in the methodology chapter. As can be seen from the tables, general willingness to take risks and career willingness to take risks both have a positive and strongly significant correlation with private sector employment choice. These results are not only consistent with the predictions in the hypothesis, but also lend significant support to previous studies of private sector choice such as, Bellante and Link (1981); Bonin et al., (2007); Clark and Postel-Vinay, (2009); Pfeifer (2008) and Buurman et al. (2012). Both variables predict the probability of private sector employment at a 1% significance level, with increasing marginal effects of 0.1500 and 0.3481, respectively.

Again, the increasing marginal effect willingness to take career risks is much higher than that of general willingness to take risks. Thus, suggesting that student's career risk attitudes are a better predictor of private sector than general risk attitudes are.

In addition, the odds of private sector employment with respect to career risk willingness, are a much greater than the odds pertaining to general willingness to take risks. While career risk seeking students are roughly 341 times more likely to choose private sector employment, than career risk averse students, the odds of choosing a private sector career for students who are generally risk seeking on the other hand, is only about 12 times higher than the odds for students who are generally risk averse. Again, such large difference in these odds, are

From the findings presented in Figure 22, it appears that final year undergraduates studying business majors are significantly more likely to choose a private sector career than non-business students, just as expected. This impact is significant at a 5% significance level, with an increasing marginal effect of 0.1001, which implies that for every unit change in the

number of respondents studying a business degree, the probability of the private sector being chosen increases by 0.1001. The explanation for this finding is that for students studying courses like banking and finance, marketing, management etc., the private sector in Nigeria has more to offer in terms of opportunities and perhaps final year undergraduates recognise this, and thus, develop a certain preference for the private sector. As can be seen from the results, are roughly 5 times more likely to choose a private sector career than non-business students are.

The impact of cognitive ability (measured by cumulative GPA) is significant at a 10% significance level. However, an opposite sign is observed for this variable. Again, this may have something to do with the proxy for cognitive ability.

It is important to remember here, that private sector in this particular context refers to both the formal and informal parts of the private sector. The informal segment includes self-employment, which therefore implies that the effect of self-employment on some variables is likely to be observed, particularly for variables which are strongly correlated with self-employment choice.

The coefficient signs pertaining to the variables for, marital status, parent's education and parents' occupational status are consistent with the expectations in the hypotheses. However, there is no significant impact of these variables on the probability of choosing private sector employment. Although it appears that respondents who have never been married before are more likely to choose a private sector career, the p-value is not significant enough to conclude that single students are more inclined towards a private sector career, than students who are either married or have been married before. The same goes for respondents whose parents are university educated or work in the public sector. Although they appear to be more, or less likely to take choose a private sector career, there is not enough statistical

grounds to conclude that they are indeed more, or less inclined towards a private sector career.

The coefficient signs for the variables pertaining to gender, general self-efficacy, age and having dependants are not only insignificant, but also deviate from the predictions in the hypotheses. For the gender and dependants variables, the inconsistent signs observed are probably due to the fact that private sector choice includes responses pertaining to self-employment. In other words, the same explanations provided earlier in the discussion of the results for self-employment choice, are applicable here. This is even further confirmed by the fact that when private sector choice is examined with respect to just the formal wage segment, the coefficient signs for gender (female) and dependants although remaining insignificant, revert back to the signs predicted in the hypotheses (Figure 24).

With regards to age, the positive sign observed may pertain more to the private wage sector. In other words, older students may be more risk averse with regards to the choice between self-employment and wage employment, and perhaps indifferent between the choice of the private wage sector and public wage sector. However, only assertions can be made as there is not enough statistical grounds to conclude that this is indeed true. The p-value for this variable is not significant and as such, the null hypothesis cannot be rejected.

As mentioned previously, the unexpected negative coefficient pertaining to general self-efficacy might be an indication that general self-efficacy is not as good a predictor of self-employment choice as perhaps specific efficacy variables like ESE are. Again, the significance of general self-efficacy on self-employment increases in the second model to a 10% significance level but, a negative coefficient sign is still observed. The reason for this remains a mystery, given that no previous research studies have obtained similar findings.

With regards to the statistical quality of the models, it cannot be said precisely which between the two models is the better. However, it does appear that the model 4 has a significantly lower BIC than the first model while, its AIC, pseudo R^2, log-likelihood although higher, are not that far off from the values in model 3. Therefore, the second model might be the better predictor. However, both models are retained in this study because they both provide valuable insight as to what the main determinants of private sector choice are, amongst final year Nigerian undergraduates.

Model 3: Logistic regression estimates					
Dependent variable: Private sector					
Variable	**B**	**Std. errors**	**P>|z|**	**Odds ratio**	**Marginal effect**
Constant	-4.5309	1.7741	**0.011**	0.0108	_
General risk seeking	2.5131	0.6863	**0.000**	12.3426	0.1500
Career risk seeking	5.8324	0.9358	**0.000**	341.1640	0.3481
General self-efficacy	-0.6782	0.6658	0.308	0.5075	-0.0405
Female	0.0430	0.6303	0.826	0.8704	-0.0083
Age ≥ 25	0.4297	0.6357	0.946	1.0439	0.0026
Never married	1.0265	1.1069	0.354	2.7913	0.0613
Dependants	0.0988	0.6689	0.883	1.1038	0.0059
University educated mother	0.8776	0.9461	0.354	2.4052	0.0524
University educated father	0.6877	0.7102	0.333	1.9891	0.0410
Public sector mother	-0.0892	0.8606	0.917	0.9146	-0.0053
Public sector father	-0.0429	0.7200	0.952	0.9580	-0.0026
Business degree	1.6764	0.7825	**0.032**	5.3464	0.1001
CGPA ≥3.1	-1.0687	0.6139	**0.082**	0.3435	-0.0638
Log likelihood=	-41.23				
Pseudo R2=	0.6918				
Wald chi2(13)	72.28				
Prob> chi2=	0.0000				
No. of observations=	202				
Predicted probability=	93.56%				
AIC=	110.46				
BIC=	156.78				

Figure 22: Regression estimates- Private sector Model 1

Model 4: Logistic regression estimates

Dependent variable: Private sector

Variable	B	Std. errors	P>|z|	Odds ratio	Marginal effect
Constant	-1.9468	0.3974	**0.000**	0.1427	_
General risk seeking	2.1866	0.5097	**0.000**	8.9056	0.1610
Career risk seeking	4.7880	0.6541	**0.000**	120.0622	0.3524
General self-efficacy	-1.0778	0.5759	**0.061**	0.3404	-0.0793
Log likelihood=	-55.1627				
Pseudo R2=	0.6216				
Wald chi2(3)	58.82				
Prob> chi2=	0.0000				
No. of observations=	220				
Predicted probability=	91.36%				
AIC=	118.33				
BIC=	131.90				

Figure 23: Regression estimates- Private sector Model 2

5.2.1 Paid private sector choice

Figure 24 and 25 below show regression estimates pertaining to paid private sector choice are similar to in many respects to the results obtained when private sector is the dependent variable, with the exception of the variables pertaining to gender and dependants. The results show that females are less likely to choose a formal private sector career, which would suggest some support for the evidence provided by Aminu (2010), who found that women in Nigeria are less likely to participate in the private wage sector than men are. However, seeing as the p-value for this variable is insignificant, it is difficult to conclude that female undergraduate students are indeed more risk averse towards the formal private sector.

The results also show that students with dependants are less likely to choose a career in the formal private sector. But again, it will be inaccurate to conclude that students with dependants are more risk averse in this regard, since the p-value for this variable is not significant.

As previously suggested, older students appear to be more likely to choose a career in the formal private sector and indifferent between the formal wage sector alternatives. But again, no conclusion can be made in this regard because the p-value is insignificant.

Business students are significantly more likely to choose the private wage sector than non-business students. The odds of choosing a private wage sector job for business students is roughly 5 times the odds for non-business students. The effect of this variable on the probability of private wage sector employment is significant at a 5% significance level, with an increasing marginal effect of 0.1632.

With regards to the statistical quality of the models, it is difficult to precisely say which model is the better of the two models as they both have significantly different number of explanatory variables. However, the first model in addition to having a higher log likelihood, pseudo R2 and predicted probability, also has the minimum AIC. Therefore it might be the

better predictor of self-employment choice for the sample of undergraduates. But then again, comparing the model BICs, it appears that the evidence against a higher BIC is much stronger in the first model, which has a BIC of about 140.03 compared to the BIC of second model which is about 121.27. Both models are accepted in this study.

Model 5: Logistic regression estimates					
Dependent variable: Paid private sector					
Variable	**B**	**Std. errors**	**P>|z|**	**Odds ratio**	**Marginal effect**
Constant	-4.5931	1.8118	**0.011**	0.0108	_
General risk seeking	2.3418	0.7077	**0.001**	10.4003	0.2149
Career risk seeking	4.4988	0.9516	**0.000**	89.9087	0.4128
General self-efficacy	-0.5761	0.7044	0.413	0.5621	-0.0529
Female	-0.1599	0.6745	0.813	0.8522	-0.0147
Age ≥ 25	0.3935	0.6815	0.564	1.4821	0.0361
Never married	0.6880	1.1594	0.553	1.9898	0.0631
Dependants	-0.3004	0.7203	0.677	0.7405	-0.0276
University educated father	1.2085	0.7664	0.115	3.3486	0.1109
University educated mother	0.9201	0.9674	0.342	2.5095	0.0844
Public sector mother	-0.1761	0.9034	0.845	0.8385	-0.0162
Public sector father	-0.1424	0.7254	0.844	0.8673	-0.0131
Business degree	1.7787	0.7964	**0.026**	5.9224	0.1632
CGPA ≥3.1	-1.0287	0.6451	0.111	0.3575	-0.0948
Log likelihood=	-36.45				
Pseudo R2=	0.5436				
Wald chi2(13)	49.48				
Prob> chi2=	0.0000				
No. of observations=	121				
Predicted probability=	87.60%				
AIC=	100.89				
BIC=	140.03				

Figure 24: Regression estimates- Paid private sector Model 1

Model 6: Logistic regression estimates

Dependent variable: Paid private sector

Variable	B	Std. errors	P>|z|	Odds ratio	Marginal effect
Constant	-1.9313	0.3991	**0.000**	0.1450	_
General risk seeking	1.9047	0.5269	**0.000**	6.7174	0.2222
Career risk seeking	3.8748	0.6872	**0.000**	48.1750	0.4520
General self-efficacy	-0.8757	0.5771	**0.129**	0.4166	-0.1022
Log likelihood=	-50.84				
Pseudo R2=	0.4289				
Wald chi2(3)	30.90				
Prob> chi2=	0.0000				
No. of observations=	134				
Predicted probability=	83.58%				
AIC=	109.68				
BIC=	121.27				

Figure 25: Regression estimates- Paid private sector Model 2

6 Conclusion

This paper investigates the impact of risk attitudes on the probability of self-employment and private sector employment for a sample of 266 final year undergraduate students in Nigeria. The main research questions which this study sort to provide answers to include the following;

1. What are the main determinants of the self-employment and private sector participation amongst final year undergraduate students in Nigeria?
2. Which variable between general willingness to take risks and career willingness to take risks, is the better predictor of the probability of self-employment private sector employment?
3. What are the main determinants of willingness to take risks amongst undergraduate students?
4. Are there contextual differences with regards to student's willingness to take risks?

The answers to these questions are documented in the results section. But a brief summary of the main findings is given here. This study finds that the probability of self-employment for undergraduate students is significantly related to both general and career willingness to take risks, with career risk taking propensity having a much stronger effect on the choice of self-employment. Other determinants of self-employment choice include, having a dependant(s) to provide for, or a public sector employed mother. The probability of private sector employment is significantly related to general and career willingness to take risks, as well studying towards a business degree.

The main determinants of students' willingness to take risks include gender, having dependents, and parents employed in the public sector. There is also evidence of context specific risk taking with regards to the gender variable and ta tendency for students to exaggerate their career willingness s to take risks is also found.

Although the main research questions of this study are answered, care must be taken with regards to how this information is interpreted. This is because the sample data used is not perfect ad has its limitations. The main limitations found for this study include the following;

i) The sample is limited to just African students and in one geographical region of Nigeria. Thus, it cannot be used to make generalised conclusions or arguments with respect to race, ethnicity and geographical region. Perhaps future studies can take race, ethnicity and geographical location into account.

ii) The true effects of proxy variables pertaining to cognitive ability and degree may be obscured as a result of this variable being either weak or constrained as a result of data grouping.

iii) The measure of self-efficacy tested against self-employment may not be as ideal, in hindsight.

iv) High levels of attrition caused by testing the self-employment choice and private sector choice as the same survey item as opposed to separate survey items

Perhaps other recommendations for improving on futures studies include:

i) Enlarging or increasing the sample size.

i) Comparing the effects of risk attitudes on employment choice across different

ii) Perhaps future studies can also take into account geographic differences (such as people living in rural and urban areas etc.

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9 Appendices

9.1 Appendix 1: Questionnaire

1. **What is your gender?**

   Male □ Female □

2. **What is your age group?**

   □ 18-24

   □ 25-33

   □ 34-44

   □ 45-54

   □ 55-65

   □ 66 or older

3. **What is your marital status?**

   Single □ Married □ Divorced □ Widow/Widower □

4. **Do you have any dependants?**

   Yes □ No □

5. **Please state your faculty below**

   _____

6. **What degree programme are you studying?**

7. **What is your current cumulative GPA?**

□ 0.0- 1.0

□ 1.1- 2.0

□ 2.1- 3.0

□ 3.1- 4.0

□ 4.1- 5.0

8. **What level of education has your mother attained**?

□ Primary school and below

□ Senior high school certificate

□ Diploma certificate

□ Bachelor's degree

□ Postgraduate

9. **What level of education has your father attained**?

□ Primary school and below

□ Senior high school certificate

□ Diploma certificate

□ Bachelor's degree

□ Postgraduate

10. **Which of the following best describes your mother's occupational status?**

□ Unemployed

□ Self-employed (Private business owner)

□ Employed in the public (government) sector

□ Employed in the private sector

□ Retiree

□ None of the above

11. Which of the following best describes your father's occupational status?

□ Unemployed

□ Self-employed (Private business owner)

□ Employed in the public (government) sector

□ Employed in the private sector

□ Retiree

□ None of the above

12. The first thing that comes to my mind when I hear the word "risk" is

□ Opportunity

□ Threat

□ Opportunity & threat

□ I genuinely have no idea

13. Ranking on a scale of 0 to 10, would you describe yourself as a person who is generally willing to take risks or do you try to avoid taking risks?

(Please circle one answer)

Avoid risks as much as possible 0-1-2-3- 4-5-6-7-8-9-10 **Take risks as much as possible**

14. People can behave differently in different situations. How would you rate your willingness to take risks when it comes to things that concern your career?

(Please circle one answer)

Avoid risks as much as possible 0-1-2-3- 4-5-6-7-8-9-10 **Take risks as much as possible**

15. After completing my studies, I will prefer to be

□ Employed in the private sector

□ Employed in the public (government) sector

□ Self-employed (Private business owner)

□ I have no preference

16. Different career options are said to have different levels of financial risk, on a scale of 0 to 10, where 0=Lowest and 10=Highest, how risky do you perceive each of following to be?

(Please circle one answer)

Career Choice	**Likert- scale**
Self-employment	0-1-2-3-4-5-6-7-8-9-10
Public sector (government) job	0-1-2-3-4-5-6-7-8-9-10
Private sector job	0-1-2-3-4-5-6-7-8-9-10

17. On a scale of 1 to 5, where 1= lowest importance and 5= highest importance, rank the importance of the each of the following attributes to you in choosing a career.

(Please circle one answer)

Attributes	**Likert-scale**
1) Job security	1-2-3-4-5
2) Autonomy	1-2-3-4-5

3) Expected Future salary 1-2-3-4-5

4) Initial starting salary 1-2-3-4-5

5) Opportunity to exercise leadership 1-2-3-4-5

6) Prestige 1-2-3-4-5

7) Advancement & growth potential 1-2-3-4-5

18. Please evaluate the following statements, on a scale of 1 to 4, where 1 = Not at all true 2 = Hardly true 3= moderately true 4 = exactly true.

(Please circle one answer)

Statement	**Likert-scale**
1) I can always manage to solve difficult problems if I try hard enough	1-2-3-4
2) If someone opposes me, I can find the means and ways to get what I want	1-2-3-4
3) It is easy for me to stick to my aims and accomplish my goals	1-2-3-4
4) I am confident that I could deal efficiently with unexpected events	1-2-3-4
5) Thanks to my resourcefulness, I know how to handle unforeseen situations	1-2-3-4
6) I can solve most problems if I invest the necessary effort	1-2-3-4
7) I can remain calm in difficult situations because I can rely on my coping abilities	1-2-3-4
8) When I am confronted with a problem, I can usually find several solutions	1-2-3-4
9) If I am in trouble, I can usually think of a solution	1-2-3-4
10) I can usually handle whatever comes my way	1-2-3-4

Please print your name in the space provided

[…….]

Thank you for completing this survey questionnaire!!

9.2 Appendix 2

Summary Statistics : After grouping data

Section A			Section B		
Variables	**Category**	**n (%)**	**Variables**	**Category**	**n (%)**
Gender:	Female	126(47.4)	Mother's Education:	Below tertiary	142(53.8)
	Male	140(52.6)		Tertiary	122(46.2)
	Total Obs.	**266**		**Total Obs.**	**264**
Age Group:	18-24	110 (41.3)	Father's Education:	Below tertiary	113(43.1)
	25-33	132(49.6)		Tertiary	149(56.9)
	Above 33	22(8.3)		**Total Obs.**	**262**
	Total Obs.	**264**			
Never Married:	Yes	38(14.3)	Mother's Occupation:	Unemployed	27(11.3)
	No	227(85.7)		Private sector	139(58.4)
	Total Obs.	**265**		Public sector	72(30.3)
				Total Obs.	**238**
Dependants:	Yes	104(39.1)	Father's Occupation:	Unemployed	8(3.9)
	No	164(60.5)		Private sector	110(54.7)
	Total Obs.	**265**		Public sector	83(41.3)
				Total Obs.	**201**
Faculty:	Agriculture	58(21.8)	Cumulative GPA:		
	Education	34(12.9)			
	Law	28(10.5)		Low	6(2.4)
	Management Sciences	96(36.1)		Average	100(39.7)
	Social sciences	50(18.8)		High	146(57.94)
	Total Obs.	**266**		**Total Obs.**	**252**